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**Luis M. Laosa**

*Educational Testing Service, Princeton, New Jersey, U.S.A.*

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La *Revista Interamericana de Psicología/Interamerican Journal of Psychology*, la publicación oficial de la Sociedad Interamericana de Psicología/Interamerican Society of Psychology, se publica dos veces por año. El propósito de la *Revista* es servir como un medio de intercambio de información científica y profesional entre psicólogos, a través del Hemisferio Occidental (América del Norte, Central y del Sur y el Caribe). La *Revista* está diseñada para facilitar la comunicación, promover un mayor entendimiento y fomentar la cooperación entre los científicos del comportamiento, a través de las Américas. Su objetivo es interesar a todos los psicólogos en el Hemisferio Occidental. Con este fin, la *Revista* aceptará manuscritos en todas las áreas de psicología general y las disciplinas relacionadas. Se aceptan los manuscritos en inglés, español y portugués.

**Manuscritos.** Los manuscritos aceptados caen dentro de varias categorías: informes sobre estudios empíricos originales, artículos teóricos, revisiones integrativas o críticas de literatura y contribuciones metodológicas. Ocasionalmente, la *Revista* publicará también artículos que traten sobre temas importantes de política relacionados a la psicología como una ciencia y/o una profesión. Aunque está más orientada hacia la investigación básica y la teoría, la *Revista* publicará también artículos que traten más directamente con problemas de tecnología y de aplicación. Trabajos enfocados al contexto cultural del comportamiento y desarrollo humanos serán especialmente bien recibidos, pero con seguridad el alcance de los manuscritos aceptados no se limitará a ese enfoque. Se considerarán también los comentarios sobre temas sustantivos y técnicos tratados en artículos publicados previamente en esta *Revista*; los comentarios se someterán a una evaluación como otros tipos de trabajo y se le dará al autor del artículo original la oportunidad de responder. Se publicarán los manuscritos en la misma lengua en que se presenten.

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The *Revista Interamericana de Psicología/Interamerican Journal of Psychology*, the official journal of the Sociedad Interamericana de Psicología/Interamerican Society of Psychology, is published twice a year. The purpose of the *Journal* is to serve as a medium to exchange scientific and professional information among psychologists throughout the Western Hemisphere (North, Central, and South America and the Caribbean). The *Journal* is designed to facilitate communication, promote greater understanding, and foster cooperation among behavioral scientists across the Americas. It is intended to be of interest to all psychologists in the Western Hemisphere. To these ends, the *Journal* will accept manuscripts in all areas of general psychology and related disciplines. Manuscripts are accepted in English, Spanish, or Portuguese.

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**Manuscritos.** Os manuscritos aceitos pertencem a várias categorias: relatórios de dados originais, artigos teóricos, ensaios críticos, e trabalhos metodológicos. Ocasionalmente a *Revista* publicará artigos que tratam de questões políticas relevantes à Psicologia como ciência e/ou profissão. Embora a *Revista* se dedique mais à pesquisa básica e à teoria, publicará também artigos mais diretamente ligados a problemas da tecnologia e da aplicação. Pesquisas que enfocam os aspectos culturais do comportamento e desenvolvimento humanos serão especialmente bem recebidas, porém os manuscritos aceitos não se limitarão a esses aspectos. Comentários sobre questões técnicas ou sobre o conteúdo dos artigos publicados em números anteriores da *Revista* serão também aceitos; sendo que esses comentários serão avaliados como qualquer outro manuscrito e se dará ao autor do artigo original a oportunidade de responder às críticas feitas. Os manuscritos serão publicados na língua original em que foram submetidos.

**Submissão de manuscritos.** Os manuscritos devem ser submetidos ao Editor: Luis M. Laosa, Educational Testing Service, Princeton, New Jersey 08541, U.S.A., de acordo com as instruções descritas na Seção *Instruções aos Autores*, neste número da *Revista*.

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residentes da América Latina ou das Caraíbas. A anuidade para estudantes é de US\$15. Os cheques devem ser pagáveis à Sociedad Interamericana de Psicología/ Interamerican Society of Psychology e enviados por via aérea à SIP/ISP Assinaturas para Indivíduos: Ana Isabel Álvarez, Departamento de Psicología, Universidad de Puerto Rico, Apartado 23174, Estación UPR, Río Piedras, Puerto Rico 00931-3174. Mudanças de endereço para indivíduos devem ser também enviadas ao endereço acima.

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# Revista Interamericana de Psicología/ Interamerican Journal of Psychology

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## CONSULTORES AD HOC/AD HOC REVIEWERS

Además de pedir a los miembros de la Junta de Consultores Editoriales que revisen los manuscritos presentados, el Director pide a otros psicólogos que participen, como consultores editoriales ad hoc, en el proceso de evaluar manuscritos. De esta forma, ha sido posible conseguir una base aún más amplia en lo que respecta al proceso de evaluación de manuscritos. A continuación se listan los individuos que han participado como consultores ad hoc para los manuscritos presentados a este volumen de la *Revista*.

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In addition to asking members of the Board of Consulting Editors to review submitted manuscripts, the Editor asks other psychologists to participate as ad hoc reviewers in the review process. In this way, we have been able to achieve an even broader review base. The following individuals served as ad hoc reviewers for manuscripts submitted to this issue of the *Journal*.

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Além de pedir que membros do Corpo de Consultores Editoriais façam as críticas dos manuscritos submetidos, o Editor solicita também que outros psicólogos participem no processo de crítica dos manuscritos, como consultores editoriais "ad hoc". Deste modo, tem sido possível obter-se uma base mais ampla para as críticas. Indicamos a seguir os nomes das pessoas que participaram como consultores editoriais "ad hoc" na crítica dos manuscritos submetidos para este volume da *Revista*.

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## **Confiabilidad y Validez del Inventario de Ansiedad Rasgo y Estado Para Niños Puertorriqueños y Panameños**

JOSÉ J. BAUERMEISTER  
ODETTE COLÓN-FUMERO

*Universidad de Puerto Rico  
Puerto Rico*

BLANCA VILLAMIL-FORASTIERI

*Universidad del Sagrado Corazón  
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y

CHARLES D. SPIELBERGER

*University of South Florida  
U.S.A.*

Los datos obtenidos en este estudio proveen evidencia de la confiabilidad y validez del Inventario de Ansiedad Rasgo y Estado para Niños (IDAREN), el cual es la versión en español del "State-Trait Anxiety Inventory for Children" (STAIC). En el estudio participaron niños puertorriqueños y panameños de 9 a 14 años de edad. Los coeficientes alfa fluctuaron entre .76 y .84 para la escala de A-Rasgo y A-Estado en ambas muestras de niños. La mediana de los coeficientes de reactivo contra escala fluctuó entre .31 y .49. Los coeficientes de correlación prueba-reprueba para la escala A-Rasgo fluctuaron entre .77 y .86. La media de las puntuaciones para la escala de A-Estado fue significativamente más alta en la condición de instrucciones de examen que en la condición de instrucciones normales. Estos datos proveen evidencia de la validez de constructo del IDAREN. La validez concurrente fue demostrada al obtener correlaciones moderadamente altas y significativas (de .66 a .91)

entre el IDAREN y el Inventario de Ansiedad Rasgo Estado (IDARE) en jóvenes adolescentes puertorriqueños. Evidencia de la equivalencia del IDAREN y del STAIC se obtiene de los coeficientes de correlación entre ambos Inventarios (entre .81 y .86) contestados por niños puertorriqueños bilingües.

A pesar de su importancia en la mayoría de las teorías contemporáneas de personalidad, la conceptualización y medición del constructo de ansiedad ha sido fuente de controversia teórica y hallazgos contradictorios. Son varias las teorías que explican el origen y las manifestaciones de ansiedad y cada una de ellas discute las variables y los conceptos de diferentes maneras (e.g., Dollard & Miller, 1950; Freud, 1936; Sullivan, 1953; Taylor, 1951). El término *ansiedad*, además, ha sido utilizado en forma indistinta y confusa para referirse a conceptos diferentes. Spielberger (1966, 1972, 1979), partiendo de la distinción ofrecida inicialmente por Cattell (1966), ha esclarecido un aspecto de la confusión reinante al destacar la necesidad de distinguir entre el concepto de ansiedad como un rasgo de personalidad relativamente estable (A-Rasgo) y ansiedad como un estado emocional transitorio (A-Estado).

En conformidad a esta distinción Spielberger y sus colaboradores han desarrollado el "State-Trait Anxiety Inventory" (STAI) y el Inventario de Ansiedad Rasgo y Estado (IDARE) para obtener medidas de ansiedad en adultos y adolescentes estadounidenses y de habla hispana (Spielberger, González, Martínez, Natalicio & Natalicio, 1971; Spielberger, Gorsuch & Lushene, 1970). A su vez, Spielberger, Edwards, Lushene, Montuori y Platzek (1973) han desarrollado el "State-Trait Anxiety Inventory for Children" (STAIC) para el estudio de ansiedad en niños estadounidenses de escuela elemental. El Inventario de Ansiedad Rasgo y Estado para Niños (IDAREN) es la versión en español del STAIC para uso con niños de habla hispana (Bauermeister, Villamil & Spielberger, 1976).

Aunque el IDAREN y el STAIC fueron específicamente diseñados para medir ansiedad en niños entre las edades de nueve a doce años, ambos inventarios pueden ser administrados a niños menores de nueve años que posean una habilidad para la lectura superior al promedio. Asimismo, también pueden ser administrados a niños mayores de doce años con habilidad para la lectura inferior al promedio (Spielberger et al., 1973). La escala A-Rasgo de ambos inventarios de ansiedad consiste de veinte reactivos en los que se pide a los niños describir cómo se sienten generalmente. La escala A-Estado también consiste de veinte reactivos, pero las instrucciones requieren que los niños indiquen cómo se sienten en un determinado momento. Esta escala fue diseñada para medir estados transitorios de ansiedad; es decir, sentimientos subjetivos conscientemente percibidos de tensión, preocupación o aprensión que varían en intensidad y fluctúan en el tiempo. Sin embargo, la escala A-Rasgo intenta medir unas diferencias individuales relativamente estables que indican predisposición a sentimientos de ansiedad.

En la teoría que distingue entre ansiedad-estado y ansiedad-rasgo se establece que las personas que han sido expuestas a situaciones que causan tensión responden usualmente con aumentos en A-Estado. Se hipotetiza que los niños con niveles más altos de A-Rasgo exhiben aumentos en A-Estado más frecuentemente que los niños con niveles bajos en A-Rasgo, ya que los primeros perciben más situaciones como potencialmente peligrosas o amenazantes. Las situaciones que un niño con un nivel alto de A-Rasgo percibirá como amenazantes son aquellas en las que siente que fracasa o en las que siente que se evalúa su capacidad de adecuación personal. La manifestación diferencial en A-Estado entre niños que difieren en A-Rasgo dependerá de experiencias pasadas y de la percepción de que una situación específica sea peligrosa o amenazante (Spielberger, 1966, 1972, 1979).

El STAIC ha sido utilizado en investigaciones que permiten establecer relaciones entre ansiedad en niños y procedimientos médicos dolorosos (Jay, Ozolins & Elliot, 1983), tratamiento dental (Klorman, Michael, Hilpert & Sveen, 1979), tipos de fracaso (Finch, Kendall, Montgomery & Morris, 1975), dificultad de la tarea (Finch, Kendall, Dannenburg & Morgan, 1978), eventos de estrés (Johnson & McCutcheon, 1980), depresión (Norvell & Brophy, 1985; Saylor, Spirito & Bennett, 1984), ejecución y aprovechamiento académico (Papay, Costello, Hedl & Spielberger, 1975; Spielberger & Papay, en prensa), entre otros.

En años recientes se ha desarrollado un interés en la investigación transcultural del concepto de ansiedad. Esta investigación ha sido guiada por una teoría que distingue entre ansiedad estado y ansiedad rasgo y conceptos relacionados tales como estrés, amenaza, miedo y otros estados emocionales. Una consideración fundamental para llevar a cabo estudios transculturales es la disponibilidad de instrumentos efectivos para medir ansiedad con objetividad, confiabilidad, equivalencia y validez de constructo evidenciadas para diferentes culturas (Spielberger & Díaz-Guerrero, 1983). El STAI, por ejemplo, ha sido adaptado a más de 30 idiomas para investigación transcultural. El STAIC, además de haber sido adaptado para niños de habla hispana (Bauermeister et al., 1976), ha sido adaptado también para ser utilizado con niños alemanes, griegos, portugueses y turcos (Spielberger & Díaz-Guerrero, 1983), holandeses (Bakker & van Wieringen, 1985), bengalíes (Chattopadhyay, Mallik & Spielberger, en prensa) y húngaros (Sipos & Sipos, 1979).

La traducción y adaptación al español del STAIC ha sido descrita por Bauermeister et al., (1976). Los pasos metodológicos seguidos en dicho proceso incluyeron el asesoramiento de profesores de lengua española, psicólogos de niños y maestros. Se entrevistaron niños de diferentes trasfondos socioeconómicos y se condujeron estudios empíricos en los cuales se evaluó la consistencia interna, confiabilidad temporal, validez y equivalencia del IDAREN con el STAIC. Los datos obtenidos en estos estudios fueron utilizados para modificar o sustituir los reactivos del Inventario. Como resultado, el IDAREN no es una mera traducción del STAIC sino que incluye la adaptación de los reactivos del STAIC y la incorporación de reactivos que recogen los sentimientos de ansiedad según lo

expresan niños de habla hispana. Por ejemplo, se modificaron las instrucciones de la versión preliminar del IDAREN destacando la cualidad de que A-Estado es un sentimiento momentáneo mientras que A-Rasgo es una cualidad más estable y relativamente permanente. Al modificar las instrucciones se tomó ventaja de la diferencia psicolinguística de los verbos *ser* y *estar* en el idioma español. Aunque su traducción al inglés es la misma ("I am"), los dos verbos aluden a dos conceptos diferentes. El verbo *estar* alude a un estado o condición, mientras que el verbo *ser* supone una permanencia. Por lo tanto, la escala A-Estado del IDAREN se llamó "Cuestionario de Cómo Estoy Ahora" y la escala A-Rasgo se tituló "Cuestionario de Cómo Soy".

El presente artículo tiene como propósito informar los resultados de las investigaciones llevadas a cabo para establecer la confiabilidad y validez del IDAREN durante la fase final de su desarrollo con niños puertorriqueños (Bauermeister et al., 1976) y posteriormente. Se informan, además, los resultados de investigaciones similares iniciadas por Colón-Fumero (1978) con una muestra de niños panameños.

## MÉTODO

La confiabilidad y validez de las escalas de A-Estado y A-Rasgo del IDAREN fueron evaluadas en los estudios mencionados subsiguientemente. Con la excepción del estudio de validez concurrente llevado a cabo con adolescentes puertorriqueños, las edades de los niños participantes fluctuaron entre los 9 y 14 años aproximadamente. Estos niños asistían a escuelas públicas y privadas en San Juan, Puerto Rico, y Ciudad de Panamá, Panamá. Fueron seleccionados tomando como criterio principal su disponibilidad para participar en la investigación.

Los directores de las escuelas informaron sobre el nivel socioeconómico de procedencia de los participantes de acuerdo a los criterios empleados en el sistema educativo de cada país. Las escalas fueron administradas a grupos separados de niños utilizando las instrucciones estandarizadas con la excepción del estudio de validez de constructo en el que se modificaron las instrucciones. Los estudios llevados a cabo se resumen a continuación.

### Estudios de Confiabilidad

La consistencia interna del IDAREN fue evaluada mediante su aplicación a 115 niños y 117 niñas puertorriqueños de cuarto, quinto y sexto grado de una escuela pública urbana. Estos estudiantes provenían en su mayoría de un nivel socioeconómico bajo. EL IDAREN fue también administrado a 253 niños y 265 niñas de quinto y sexto grado que asistían a tres escuelas públicas de Panamá. La mayoría de los estudiantes que asistían a dos de estas escuelas procedían de un nivel socioeconómico bajo; en cambio, los que asistían a la tercera escuela provenían de un nivel socioeconómico medio.

Para analizar la confiabilidad temporal del IDAREN, éste se aplicó por segunda vez a un grupo de 100 niños y niñas puertorriqueños de una escuela pública urbana de un nivel socioeconómico bajo. Para la muestra de niños panameños el Inventario se volvió a aplicar a 51 niños y 54 niñas de la muestra inicial que asistían a la escuela de clase media. En ambos estudios la aplicación se llevó a cabo a las cuatro semanas de la primera administración.

## Estudios de Validez

*Validez de constructo.* Para estudiar la validez de constructo (construct validity) se aplicó el IDAREN a 101 estudiantes puertorriqueños de cuarto, quinto y sexto grado de una escuela pública urbana de nivel socioeconómico bajo. A estos estudiantes se les aplicó primero las escalas de A-Estado y A-Rasgo en condiciones estándar (instrucciones normales) y luego se les pidió que respondieran a las escalas de acuerdo a cómo se sentirían justo antes del examen final en una materia importante (instrucciones de examen). Un procedimiento similar se empleó con 151 niños y 137 niñas panameños de quinto y sexto grado que asistían a la escuela pública de clase media anteriormente identificada. A esta muestra, en cambio, durante la segunda administración de la escala A-Estado se les pidió a los niños que se imaginaran cómo se sentirían si les informaran que habían fracasado un examen importante y necesario para ser promovido de grado. Los niños tenían que imaginar que la directora de la escuela los había mandado a buscar y que en la dirección esperaban sus padres, los cuales estaban sumamente molestos (Colón-Fumero, 1978).

*Validez concurrente.* Para determinar la validez concurrente se administraron el IDAREN y el Inventario de Ansiedad Rasgo y Estado (IDARE) en orden contrabalanceado a un grupo de 44 varones y 44 niñas puertorriqueños. Estos niños cursaban el décimo grado de escuela superior en una escuela pública urbana, de nivel socioeconómico medio. Las edades de los participantes fluctuaban entre 13 y 15 años. El IDARE fue desarrollado para medir ansiedad estado-rasgo en adolescentes y adultos de habla hispana (Spielberger et al., 1971). Al primer grupo (11 varones y 11 niñas) se le administró las escalas en el siguiente orden: IDAREN A-Estado, IDARE A-ESTADO, IDAREN A-Rasgo e IDARE A-Rasgo. Al segundo grupo, también de 11 varones y 11 niñas, la administración fue en el siguiente orden: IDARE A-Estado, IDAREN A-Estado, IDARE A-Rasgo e IDAREN A-Rasgo.

En un segundo estudio de validez concurrente se investigó la equivalencia entre el STAIC y el IDAREN administrando ambas formas a 30 varones y 30 niñas puertorriqueños bilingües de clase alta. Estos estudiantes cursaban el quinto y sexto grado en una escuela católica, privada, urbana donde casi todas las materias se enseñaban en inglés. El idioma primario de estos estudiantes era el español. Al igual que un estudio anterior (Bauermeister et al., 1976) el criterio operacional de bilingüismo fue definido en términos de capacidad de lectura en inglés y en español según había sido certificado por las maestras y por una calificación media de B (satisfactorio) o más en cada una de dichas materias. Los inventarios fueron administrados en orden contrabalanceado. Al primer grupo de 15 niños y 15 niñas el orden de las escalas administradas fue: IDAREN A-Estado, STAIC A-

Estado, IDAREN A-Rasgo y STAIC A-Rasgo. Al segundo grupo de 15 niños y 15 niñas el orden de administración fue el siguiente: STAIC A-Estado, IDAREN A-Estado, STAIC A-Rasgo e IDAREN A-Rasgo.

## RESULTADOS

Las medias y las desviaciones típicas del IDAREN se informan en la Tabla 1 para 232 niños y niñas de cuarto, quinto y sexto grado de escuelas públicas (nivel socioeconómico bajo) y privadas (nivel socioeconómico medio o alto) del área metropolitana de San Juan, Puerto Rico. Se informan, además, para 518 niños y niñas de quinto y sexto grado de dos escuelas públicas de nivel socioeconómico bajo y una de nivel socioeconómico medio, localizados en la zona urbana de la Ciudad de Panamá, Panamá. La media de las puntuaciones en las escalas de A-Rasgo y A-Estado fueron analizadas por medio de pruebas *t*. No se obtuvieron diferencias estadísticamente significativas entre la media de las puntuaciones obtenidas por los niños puertorriqueños de cuarto, quinto o sexto grado y entre los niños de nivel socioeconómico bajo y medio-alto ( $p < .05$ ). Para los niños panameños tampoco se obtuvieron diferencias significativas entre la media de las puntuaciones de los estudiantes de quinto y sexto grado y entre el nivel socioeconómico bajo y medio.

**Tabla 1**

Medias y Desviaciones Típicas del IDAREN Para Niños en Puerto Rico y Panamá

Grupo	A-Rasgo		A-Estado	
	Varones	Niñas	Varones	Niñas
Muestra de Puerto Rico				
<i>n</i>	115	117	115	117
Media	33.15	34.34	29.12	28.81
Desviación típica	6.12	6.91	4.97	5.93
Muestra de Panamá				
<i>n</i>	253	265	253	265
Media	35.30	36.09	30.87	29.51
Desviación típica	5.22	5.39	6.00	5.68

La media de las puntuaciones de los niños panameños en la escala A-Estado del IDAREN fue mayor que la de las niñas ( $z = 2.67$ ;  $p < .05$ ). Por otro lado, la media obtenida por los niños y niñas de Panamá en la escala de A-Rasgo fue mayor a la obtenida por los niños y niñas de Puerto Rico ( $z = 3.25$  y  $2.43$ , respectivamente;  $p < .05$  en cada caso). Finalmente, los varones de la muestra de Panamá obtuvieron una puntuación media en la escala A-Estado significativamente mayor que los varones de la muestra de Puerto Rico ( $z = 2.91$ ;  $p < .05$ ).

La confiabilidad del IDAREN fue examinada a través de análisis de consistencia interna y de prueba reprobada en un intervalo de cuatro semanas. Los datos



de consistencia interna han sido resumidos en la Tabla 2, donde se presentan los coeficientes alfa (Cronbach, 1951) y la mediana de los coeficientes de reactivo

**Tabla 2**

Coeficientes Alfa y Mediana de los Coeficientes de Correlación Reactivo Contra Escala Para el IDAREN Computados Para la Muestra de Puerto Rico y Panamá

Grupo	A-Rasgo		A-Estado	
	Alfa	Mediana	Alfa	Mediana
Muestra de Puerto Rico				
Varones ( $n = 115$ )	.80	.33	.83	.41
Niñas ( $n = 117$ )	.84	.41	.86	.49
Muestra de Panamá				
Varones ( $n = 253$ )	.76	.31	.84	.45
Niñas ( $n = 265$ )	.78	.33	.83	.42

contra escala computados para cada muestra. Los coeficientes alfa fluctuaron entre .76 y .86 para las escalas A-Rasgo y A-Estado en ambas muestras. La mediana de los coeficientes de reactivo contra escala fluctúa de .31 a .49.

Salvo dos excepciones, todos los coeficientes de reactivo contra escala obtenidos para las escalas del IDAREN en ambas muestras fueron estadísticamente significativos ( $p < .05$ ). La primera excepción fue el coeficiente obtenido para el reactivo "siento terror" de la escala A-Estado en la muestra de varones puertorriqueños, el cual no alcanzó el nivel de significancia estadístico establecido (.05). Para la muestra de niños y niñas de Panamá el reactivo "resuelvo mis problemas con facilidad" de la escala A-Rasgo tampoco alcanzó dicho nivel de significancia. En términos generales, los coeficientes de consistencia interna obtenidos son más altos para la escala A-Estado que para la escala A-Rasgo.

Las correlaciones de prueba-reprueba para el IDAREN han sido presentadas en la Tabla 3. Es de notar que los coeficientes para las escalas de A-Rasgo son considerablemente más altos que los de la escala A-Estado.

**Tabla 3**

Coeficientes de Correlación Prueba-Reprueba del IDAREN Para Niños y Niñas en Puerto Rico y Panamá

Grupo	Escala	Escala
	A-Rasgo	A-Estado
Muestra de Puerto Rico		
Varones ( $n = 50$ )	.77	.34
Niñas ( $n = 50$ )	.86	.40
Muestra de Panamá		
Varones ( $n = 51$ )	.78	.35
Niñas ( $n = 54$ )	.83	.58

*Nota.* Todos los coeficientes son estadísticamente significativos ( $p < .05$ )

Los resultados del estudio de validez de constructo para la muestra de Puerto Rico y Panamá han sido resumidos en la Tabla 4. En este estudio se aplicó primero la escala A-Estado con las instrucciones estándar (instrucciones normales) y luego se le pidió a los niños que completaran la escala A-Estado, según ellos creían que se sentirían justo antes del examen final en una materia importante o después de haber sido informados de haber fracasado en un examen. Se

**Tabla 4**

Medias, Desviaciones Típicas y Pruebas de *t* Entre las Puntuaciones Obtenidas en la Escala de A-Estado Para las Instrucciones Normales e Instrucciones de Examen

Grupo	Instrucciones normales		Instrucciones de examen		<i>t</i>
	Media	Desviación típica	Media	Desviación típica	
Muestra de Puerto Rico					
Varones ( <i>n</i> = 58)	29.26	6.52	37.65	9.08	6.62*
Niñas ( <i>n</i> = 43)	28.68	6.98	37.74	9.97	5.67*
Muestra de Panamá					
Varones ( <i>n</i> = 151)	29.21	6.22	48.43	11.39	17.68*
Niñas ( <i>n</i> = 137)	29.15	7.96	50.13	11.65	19.42*

\**p* < .01

**Tabla 5**

Medianas de los Valores de *t* y de Coeficientes Punto Biserial Para los Reactivos de la Escala A-Estado del IDAREN Bajo Condiciones de Instrucciones Normales y de Examen

	Valor de <i>t</i> más bajo	Valor de <i>t</i> más alto	Mediana de valor de <i>t</i>	Mediana de <i>r<sub>pb</sub></i>
Muestra de Puerto Rico				
Varones ( <i>n</i> = 58)	2.32	6.59	4.45	.34
niñas ( <i>n</i> = 43)	1.81	6.32	4.60	.35
Muestra de Panamá				
Varones ( <i>n</i> = 151)	8.10	17.80	14.07	—
Niñas ( <i>n</i> = 137)	9.40	22.53	15.18	—

computaron pruebas de *t* para las diferencias entre las puntuaciones totales de la escala A-Estado y para las puntuaciones de cada reactivo para las condiciones de instrucciones normales y de examen. Estos datos han sido resumidos en las Tablas 4 y 5. Para la muestra de Puerto Rico se calcularon, además, los coeficientes de correlación punto biserial entre las puntuaciones de cada uno de los reactivos y las condiciones de instrucciones normales y de examen.

La media de la puntuación total para la escala A-Estado del IDAREN fue significativamente más alta (*p* < .05) en la condición de instrucciones de examen

que en la condición de instrucciones normales, para ambas muestras de niños. Estos datos han sido resumidos en la Tabla 4.

Con la excepción del reactivo 8 (“relajado”) para el grupo de niñas de Puerto Rico, cada reactivo individual discriminó significativamente entre las condiciones de instrucciones normales y de examen. Las diferencias en A-Estado evocadas por los dos tipos de instrucciones y reflejadas en los reactivos quedaron definidas por la magnitud menor y mayor de los valores de  $t$  y por la magnitud de las correlaciones punto biseriales presentadas en la Tabla 5. Se observa, además, que la media de las puntuaciones en la condición de instrucciones de examen para la muestra de niños y niñas de Panamá fue significativamente mayor que la obtenida para la muestra de Puerto Rico (varones:  $z = 8.65$ ; niñas:  $z = 7.08$ ;  $p < .001$  en cada caso). Para la muestra de Puerto Rico, el reactivo “nervioso” discriminó mejor entre las condiciones de instrucciones normales y de examen para los varones y el reactivo “calmado” fue el que mejor discriminó para las niñas. Para la muestra de Panamá, el reactivo “estoy feliz” fue el mejor que discriminó entre las condiciones de instrucciones normales y de examen para los varones; para las niñas el reactivo “siento temor” fue el mejor que discriminó entre ambas condiciones.

Contrastando con las correlaciones punto biserial obtenidas para los reactivos de la escala A-Estado en la muestra de Puerto Rico, las correlaciones para los reactivos de la escala A-Rasgo del IDAREN no fueron estadísticamente significativas ( $p < .05$ ). La correlación punto biserial mediana fue de .06 para varones y de .04 para niñas. Estos resultados eran de esperarse, ya que la escala A-Rasgo ha sido diseñada para medir diferencias individuales relativamente estables en propensión a sentir ansiedad y no estados transitorios de ansiedad que varían en intensidad de acuerdo a las circunstancias.

Finalmente, los coeficientes alfa y las correlaciones de reactivo contra escala obtenidos para la escala A-Estado en las muestras de Puerto Rico y Panamá fueron significativamente más altas en la condición de instrucciones de examen que en la condición de instrucciones normales. En la muestra de Puerto Rico, por ejemplo, el coeficiente alfa para el grupo de varones aumentó de .83 en la

**Tabla 6**

Coefficientes de Correlación Producto-Momento Pearson Entre las Escalas de A-Estado y A-Rasgo del IDAREN, IDARE y STAIC

Instrumentos	Varones	Niñas
A-Estado IDAREN e IDARE	.87 ( $n = 44$ )	.91 ( $n = 44$ )
A-Rasgo IDAREN e IDARE	.66 ( $n = 44$ )	.72 ( $n = 44$ )
A-Estado IDAREN y STAIC	.84 ( $n = 30$ )	.82 ( $n = 30$ )
A-Rasgo IDAREN y STAIC	.81 ( $n = 30$ )	.86 ( $n = 30$ )

*Nota.* Todos los coeficientes son estadísticamente significativos ( $p < .002$ ).

condición de instrucciones normales a .93 en la condición de instrucciones de examen; para el grupo de niñas aumentó de .80 a .95. Estos datos evidencian una confiabilidad y consistencia interna mayor aún en la escala de A-Estado bajo condiciones simuladas de tensión emocional.

Los resultados de los estudios de validez concurrente han sido resumidos en la Tabla 6. Los coeficientes de correlación obtenidos entre el IDAREN y el IDARE para la muestra de 88 jóvenes adolescentes fluctúan entre .66 y .91. Los coeficientes obtenidos entre el IDAREN y el STAIC en niños puertorriqueños bilingües fluctuaron entre .81 y .86. Todos los coeficientes fueron estadísticamente significativos ( $p < .002$ ).

## DISCUSIÓN

En este artículo se han presentado una serie de investigaciones encaminadas a evaluar la confiabilidad y la validez del Inventario de Ansiedad Rasgo y Estado para Niños (IDAREN). Los datos obtenidos con el grupo de niños puertorriqueños señalan consistentemente la utilidad del Inventario para medir la ansiedad en esta muestra. Estos hallazgos eran esperados, ya que la adaptación, desarrollo y selección de los reactivos del IDAREN tuvieron como base datos empíricos obtenidos con esta muestra (Bauermeister et al., 1976) o con las muestras similares utilizadas en estudios posteriores. Los datos del grupo de niños panameños no solamente demuestran la utilidad del IDAREN para medir ansiedad en esta muestra sino que corroboran la confiabilidad y validez del mismo en un grupo cultural distinto.

Los coeficientes de correlación de reactivo contra escala obtenidos en la muestra de niños puertorriqueños y panameños, para las escalas A-Estado y A-Rasgo, son comparables a los informados por Spielberger et al. (1973) para el "State-Trait Anxiety Inventory for Children" (STAIC). Se obtuvieron coeficientes alfa moderadamente altos tanto para los niños como para las niñas de ambas muestras, los cuales también son comparables con los informados por Spielberger et al. (1973) para el STAIC. Estos datos indican una consistencia interna alta de las escalas de ansiedad estado y ansiedad rasgo para niñas y niños puertorriqueños y panameños. Los coeficientes alfa y de reactivo contra escala fueron menores para la escala A-Rasgo que para la escala A-Estado, particularmente en la muestra de Panamá. El reactivo "resuelvo mis problemas con facilidad" de la escala A-Rasgo no correlaciona significativamente con los demás reactivos de la escala en la muestra de niños y niñas panameños. Se recomienda que este reactivo sea sustituido por otro de mayor consistencia interna en la muestra de niños panameños, de acuerdo a las recomendaciones ofrecidas por Colón-Fumero (1978).

La estabilidad de la escala A-Rasgo del IDAREN fue documentada midiendo la magnitud de los coeficientes de correlación de prueba y reprobación

obtenida para niños y niñas en un intervalo de cuatro semanas. Estos coeficientes fluctuaron de .77 a .86 y fueron estadísticamente significativos. Evidencia adicional de la estabilidad de la escala A-Rasgo ha sido informada por Bauermeister et al. (1976) para un grupo de niños puertorriqueños de nueve a once años de edad. En el primer estudio los coeficientes de prueba-reprueba en un intervalo de tres semanas fueron .74 para varones y .73 para niñas. En un segundo estudio la escala de ansiedad rasgo fue administrada a un grupo de niñas en intervalos de seis y dieciocho semanas. Los coeficientes de estabilidad obtenidos fueron de .70 y .75, respectivamente.

Como es de esperarse, las correlaciones de prueba-reprueba para la escala de A-Estado del IDAREN fueron más bajas que las obtenidas para la escala A-Rasgo. Esto es así porque la escala de ansiedad estado fue diseñada para ser sensible a la influencia de factores situacionales que típicamente cambian a lo largo del tiempo. Sin embargo, el coeficiente de prueba-reprueba obtenido para el grupo de niñas de Panamá en la escala A-Estado (.58) es mayor que los informados por Spielberger et al. (1973) para el STAIC. No existe evidencia disponible al momento presente que explique estas diferencias.

En cuanto a la validez de constructo de la escala A-Estado del IDAREN, las correlaciones punto biserial y las pruebas de *t* obtenidas para las condiciones de instrucciones normales y de examen apuntan hacia la validez de la misma. Las puntuaciones media para la escala A-Estado fueron significativamente más altas en la condición de instrucciones de examen que en la condición de instrucciones normales, tanto para los niños como para las niñas de ambas muestras. Cada reactivo individual discriminó significativamente entre ambas condiciones salvo una excepción. Para la muestra de varones de Puerto Rico, los reactivos que mejor distinguieron entre las condiciones de instrucciones normales y de examen fueron "nervioso", "asustado", "miedo", "temor" y "tranquilo". Para las niñas los reactivos que mejor discriminaron entre ambas condiciones fueron "calmado", "preocupado", "inquieto", "asustado" y "contento". Para los niños panameños los mejores reactivos fueron "feliz", "miedo", "contento", "bien" y "temor"; para las niñas "temor", "tranquilo", "contento", "asustado" y "bien". Estos resultados ilustran las semejanzas en las expresiones que mejor discriminan entre ambas condiciones en la mayoría de los grupos (por ejemplo, los reactivos "asustado" y "temor") así como las expresiones particulares o idiosincráticas de cada grupo. Por ejemplo, el reactivo "calmado" fue el que mejor discriminó en el grupo de niñas puertorriqueñas. En cambio, este reactivo es el único que no aparece en el listado de los cinco reactivos que mejor discriminaron entre ambas condiciones en el grupo de los niños puertorriqueños al igual que en el grupo de los niños y niñas panameños.

Es importante destacar que en la escala de A-Estado los valores de la prueba de *t* entre la media de las puntuaciones obtenidas bajo la condición de instrucciones normales y de examen fueron considerablemente mayores en la muestra de niños panameños. Esta diferencia se asocia al grado de amenaza personal comunicada en las instrucciones a los participantes. A los niños puertorriqueños

se les instruyó que contestaran la escala A-Estado de acuerdo a cómo se sentirían justo antes del examen final en una materia importante; a los niños panameños, en cambio, se les instruyó a que contestaran de acuerdo a cómo se sentirían luego de haber fracasado en un examen importante y necesario para ser promovido de grado y de haber sido convocados a reunirse con la directora de la escuela y sus padres. Las puntuaciones obtenidas por los niños panameños en la escala A-Estado bajo estas instrucciones fueron significativamente más altas que las obtenidas por los niños puertorriqueños cuyas instrucciones eran menos amenazantes.

Finalmente es conveniente destacar que los coeficientes reactivo contra escala y los coeficientes alfa fueron significativamente más altos para las instrucciones de examen que para las instrucciones normales en ambas muestras. Spielberger et al. (1979) han informado hallazgos similares para adolescentes y adultos con el STAI.

Sin embargo, no se obtuvieron diferencias significativas entre la media de las puntuaciones en la escala A-Rasgo para las condiciones de instrucciones de examen y de instrucciones normales. Las correlaciones punto biserial obtenidas para los reactivos de A-Rasgo en condiciones normales y de examen fueron sumamente bajas y no significativas para las muestras de Puerto Rico. La correlación punto biserial mediana para los varones fue .06 y para las niñas .04. Estos resultados eran esperados ya que la escala A-Rasgo fue diseñada para medir diferencias individuales relativamente estables en cuanto a la predisposición a sentir ansiedad y no estados transitorios de ansiedad que varían en intensidad de acuerdo a factores situacionales.

Aunque los resultados de este estudio proveen evidencia inicial de la validez del IDAREN, es necesario llevar a cabo estudios de validez de constructo en los cuales se puedan evaluar las reacciones de ansiedad-estado experimentadas por los niños en situaciones reales y no en situaciones simuladas como en el estudio presente. Bauermeister y Ouslán (1974) ofrecen evidencia a estos efectos. En este estudio, niñas con reacciones de ansiedad estado y evasión intensa hacia ratas de laboratorio participaron en el procedimiento experimental de extinción por modelaje. Las niñas que participaron en los grupos que recibieron el tratamiento de extinción obtuvieron puntuaciones significativamente más bajas en la escala A-Estado al terminar el tratamiento en oposición a las niñas de los grupos controles. Además, las puntuaciones en la escala A-Estado correlacionaron negativa y significativamente con la puntuación de una prueba de acercamiento conductual a las ratas y positivamente con el miedo a las mismas. Por otro lado, las puntuaciones de A-Rasgo de las niñas participantes se mantuvieron inalteradas a lo largo del estudio. Este hallazgo es consistente con el hecho de que el tratamiento de modelaje empleado estaba encaminado a reducir las reacciones de ansiedad-estado a las ratas y no a alterar la predisposición de las niñas a experimentar reacciones de ansiedad en general.

Resulta sumamente difícil evaluar la validez concurrente del IDAREN en niños hispanoparlantes, ya que no existen otros instrumentos que midan

ansiedad estado y rasgo en forma válida y confiable. Sin embargo, la validez concurrente del IDAREN se estableció en forma indirecta al aplicar éste y el Inventario de Ansiedad Rasgo y Estado (IDARE) desarrollado para adolescentes y adultos (Spielberger et al., 1971) en orden contrabalanceado a un grupo de estudiantes de décimo grado. La magnitud de los coeficientes de correlación obtenida sugiere que el IDAREN y el IDARE miden, en términos generales, constructos similares en estudiantes puertorriqueños del décimo grado.

Evidencia de la equivalencia del IDAREN y del STAIC se obtiene mediante el análisis de los coeficientes de correlación en ambos Inventarios por niños puertorriqueños bilingües de escuela elemental. Estas correlaciones fluctuaron entre .81 y .86. Los resultados ofrecen evidencia adicional que el IDAREN incluye escalas que miden A-Estado y A-Rasgo en niños de habla hispana similares a las escalas A-Estado y A-Rasgo desarrolladas para niños estadounidenses. Datos similares fueron informados por Bauermeister et al. (1976). Ortiz (1985) ofreció evidencia adicional de la validez de construcción y concurrente del IDAREN. Este investigador examinó la relación auto-concepto (según medido por la "Escala de Auto-Concepto de Piers-Harris"), timidez (según medido por el Inventario sobre Timidez en Niños desarrollada por el autor), ansiedad-estado y ansiedad-rasgo en niños puertorriqueños de escuela elemental. Ortiz (1985) obtuvo correlaciones estadísticamente significativas de .50 entre A-Rasgo y auto-concepto y de .53 entre A-Rasgo y timidez. En contraste no se obtuvieron correlaciones significativas entre ansiedad-estado y auto-concepto ( $r = .02$ ) y entre ansiedad-estado y timidez ( $r = .15$ ). Estos resultados son consistentes con la teoría de ansiedad formulada por Spielberger (1966, 1972, 1979), ya que el concepto de ansiedad-rasgo se refiere a diferencias individuales relativamente estables en propensidad a sentir ansiedad y a percibir situaciones de evaluación como amenazantes, particularmente aquellas en que se evalúa la capacidad de adecuación personal. El concepto de ansiedad-estado, por otro lado, se refiere a estados transitorios de ansiedad que varían en intensidad y fluctúan en el tiempo y que no necesariamente correlacionan con auto-concepto o timidez en un momento dado.

Es necesario llevar a cabo otros estudios encaminados a proveer evidencia adicional sobre la confiabilidad y validez del IDAREN para niños hispanoparlantes de otros países. La experiencia en el desarrollo del IDAREN señala que es posible que sea necesaria una versión particular para cada país o para grupos de países. Aunque la mayoría de los reactivos pueden ser comprendidos por niños de habla hispana, es posible que un número reducido de los reactivos no tenga una aceptación generalizada. Ejemplo de lo anterior es el reactivo "tímido" en la escala A-Rasgo del IDAREN. Aunque este reactivo obtuvo un coeficiente de reactivo contra escala estadísticamente significativo en la muestra de niños panameños, fue señalado como un reactivo que podría presentar dificultad de comprensión para algunos niños. En su lugar se sugirió el reactivo "penoso" (Colón-Fumero, 1978).

En la revisión del IDAREN para niños de otros países de habla hispana se

recomienda que se sigan los pasos metodológicos empleados para el desarrollo de la versión actual del IDAREN. Estos incluyeron el asesoramiento de profesionales, entrevistas a niños de diferentes trasfondos económicos y el desarrollo de estudios empíricos de confiabilidad y validez. Los datos obtenidos en estos estudios fueron utilizados para modificar o sustituir los reactivos del Inventario. Como resultado, el IDAREN no es una traducción literal del STAIC sino que incluye la adaptación de los reactivos del STAIC y la adición de reactivos que recogen los sentimientos de ansiedad según lo expresan niños de habla hispana. Las instrucciones del IDAREN son diferentes a las del STAIC, ya que han sido modificadas tomando ventaja de las diferencias psicolingüísticas de los verbos *estar* (que refleja el concepto de ansiedad-estado) y *ser* (que refleja el concepto de ansiedad-rasgo al implicar permanencia) a pesar de que su traducción al inglés sea la misma.

Se espera que el desarrollo de la versión actual del IDAREN estimule el desarrollo de versiones similares para otros países y la investigación transcultural en torno a los conceptos de ansiedad estado y rasgo.

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## EXTENDED SUMMARY

**Reliability and Validity of the Spanish Version of  
The State-Trait Anxiety Inventory for  
Puerto Rican and Panamanian Children**

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The purpose of this study is to examine the internal consistency, the test-retest reliability, and the construct and concurrent validity of the "Inventario de Ansiedad Rasgo y Estado para Niños" (IDAREN) for Puerto Rican and Panamanian children. The IDAREN is the Spanish version of the State-Trait Anxiety Inventory for Children (STAIC), developed by Spielberger et al. (1973). The IDAREN and STAIC have been developed to measure anxiety in 9- to 12-year-old elementary school children. The IDAREN A-State scale has been designed to measure transitory anxiety states, that is, subjective, consciously perceived feelings of tension, apprehension, nervousness, and worry that vary in intensity and fluctuate over time. The IDAREN A-Trait scale measures relatively stable individual differences in anxiety proneness; that is, differences between children in the tendency to experience anxiety states.

The reliability of the IDAREN was determined by administering the A-State and A-Trait scales on two separate occasions to fourth-, fifth-, and sixth-grade students in Puerto Rico and Panamá over a period of three to four weeks. The correlation coefficients ranged from .77 to .86 for the A-Trait scale. The test-retest correlation coefficients for the A-State scale were lower than those for the A-Trait scale. This finding was anticipated since the A-State scale was designed to be sensitive to the influence of unique situational factors that typically change over time.

Reasonably high item-remainder correlation coefficients were obtained for most of the items of the IDAREN A-State and A-Trait scales, for male and female Puerto Rican and Panamanian children. Alpha coefficients ranged from .76 to .84. The median item-remainder correlations ranged from .31 to .49. These data are indicative of the homogeneity of individual items in the IDAREN and the moderately high internal consistency of the A-State and A-Trait scales for both samples of children.

To evaluate construct validity we administered the IDAREN to Puerto Rican and Panamanian children with standard instructions and then readministered it with instructions for subjects to respond according to how they believed they would feel just before the final examination in an important course (test condition for Puerto Rican children) or after failing an important test required for grade promotion (test condition for Panamanian children). The mean A-State scores were considerably higher in the test condition than in the normal condition for both samples. With one exception, the mean score for each A-State item was also significantly higher in the test condition. By contrast, no significant difference was obtained in the mean A-Trait scores in the test and normal conditions. Thus, the A-Trait scale was not influenced by situational stress, as would be expected for a relatively stable personality trait.

Concurrent validity was determined by administering the IDAREN and the Spanish STAI (developed for adolescents and adults) in a counterbalanced order to a group of tenth-grade Puerto Rican students. The magnitude of the correlation coefficients obtained between these two scales ranged from .66 to .91, results suggesting that both inventories are measuring similar constructs. Finally, the equivalence of the IDAREN and the STAIC was evaluated by our administering both instruments to a group of bilingual Puerto Rican children. The correlation coefficients between the A-State and A-Trait scales ranged from .51 to .86.

In general, the data reported in this article provide evidence of the reliability and validity of the IDAREN for Puerto Rican and Panamanian children. The IDAREN, or revised versions of it for particular countries, can be used to measure anxiety in Spanish-speaking children, thus providing a means for cross-cultural research on state-and-trait anxiety.

## Attributions of Locus of Control in a Puerto Rican Sample

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A Spanish translation of the Rotter Internality-Externality (I-E) scale was tested on a sample of Puerto Rican college students and found to be moderately internally consistent and to yield score distributions comparable to those in similar Anglo-American samples. Level of internality related directly to active participation, higher grades, and lower levels of symptomatology as is also characteristic of Anglo-American samples. A structure-factor analysis of the I-E responses yielded 9 factors with limited conceptual coherence and contradictory item factor loadings. These findings suggest that the locus of control construct has some Anglo-American-Hispanic cross-cultural generality. However, at more specific (emic) levels the process of constructing locus of control attributions is substantially different and involves somewhat disparate approaches to causal attributions and distinctive ways of expressing them. It is suggested that further research identifying cross-cultural similarities (etics) and differences (emics) to locus of control attributions requires attention to the nature of people's processes of constructing attributions.

As originally conceived, locus of control (Rotter, 1966) refers to patterns of attributions with respect to mediation of reinforcement. If people believe that their own actions mediate receiving reinforcements, then they are said to have an

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internal locus of control. If, on the other hand, people believe that they cannot control reinforcers then they are said to have an external locus of control. In essence, locus of control refers to the degree to which people believe they influence the events in their lives.

Rotter (1966) developed an Internality-Externality (I-E) Scale to assess the degree to which an individual's causal attributions reflect an internal or external locus of control. That I-E Scale has generated a large body of research and its psychometric properties and utility have been extensively evaluated (Lefcourt, 1976, 1984; Phares, 1976). In this regard, Lefcourt (1976) suggests that locus of control can "be more fruitfully viewed as a circumscribed self-appraisal pertaining to the degree to which individuals view themselves as having some causal role in determining specified events" (p. 141). Relationships have been found between I-E and cognitive styles, achievement-related behavior, and psychopathology. In general, these results seem to suggest that, at least for middle-class Anglo Americans, a moderately internal locus of control is related to optimal functioning in these areas. The studies' conclusions, however, are drawn from a focus on total I-E score, not on the patterned process of responding to differently structured test items.

Cross-cultural and cross-ethnic research with the Rotter I-E Scale thus far has generally dealt with locus of control from the perspective originally delineated by Rotter (1966). Dyal (1984), Lefcourt (1976, 1984), and Phares (1976) review this research, much of which suggests that Spanish Americans<sup>1</sup> (and those from other non-Anglo cultures) are more externally oriented than Anglo Americans. Such results are often interpreted in terms of the lower socioeconomic status (SES) of minority groups (and citizens of so-called underdeveloped countries). In these interpretations low SES represents limited access to society's resources; and therefore, the sense of control over outcomes in one's life is reduced and creates a fatalistic attitude. A review of past research on using the I-E scales with Hispanics was conducted by Cole and his associates (Cole & Cole, 1974; Cole, Rodriguez, & Cole, 1978). They cite studies in which Mexican Americans score high on externality. These results are interpreted as consistent with the traditions, the patterns of socialization, and the societal structures and beliefs (particularly fatalism) of this culture.

Other research has not resulted in such findings. Bender and Ruiz (1974) used various I-E measures and found that Mexican Americans equalled or exceeded their Anglo-American counterparts' degree of internality. Cole and Cole (1974) found that Mexican university students, especially women, obtained higher internality scores on a translation of Rotter's I-E Scale than did Anglo-American

<sup>1</sup>There are numerous cultures which have common roots in their Spanish heritage and commitment to Spanish as their first language. In this manuscript *Hispanic* will be used to designate those cultures as a group. *Spanish American* will be used to refer to the members of those cultures living in the United States. More specific groups will be referred to, respectively, as *Chicanos* or *Mexican Americans*, *Mexicans*, *Puerto Ricans*, etc. Further, the dominant English-speaking cultural group living in or from the United States will be referred to as *Anglo Americans* even though this grouping somewhat obscures the diversity of their heritages.

university students. Cole et al. (1978) similarly found that among matched samples of Mexican, Mexican-American, and Anglo-American university students, the Mexican students scored significantly higher in internality than did the Mexican-American and Anglo-American students. The higher internality of the Mexican students is attributed to their participation in "counternormative behavior;" that is, they were pursuing goals and assuming stances contrary to those that it was assumed were dictated by Mexican culture. Such behavior, it is posited by the researchers, requires a more personally (internally) directed approach to life events.

Garza and Ames (1974) presented a somewhat different counternormative interpretation of their results. They compared Anglo and Mexican-American college students matched on sex and SES and found that the Mexican Americans scored more in the internal direction than did the Anglo Americans. These researchers concluded that "the family centered orientation and the perennial resistance to give up their culture and heritage suggest belief in internal locus of control inasmuch as they indicate resistance to external influences" (p. 919). This explanation of the internality of Mexican-American students, however, remains grounded in Anglo-American concepts and in the documented Anglo-American expectation (Cole et al., 1978) that Mexican Americans have an external locus of control.

In his comprehensive review of cross-cultural research on locus of control, Dyal (1984) has noted that the overall picture of comparisons of Hispanic Americans and Anglos is quite mixed. There is support for the greater externality of older Hispanics and those of lower socioeconomic status. Yet among school children and college students findings are quite conflicting. Hypotheses as to the reasons for these findings include failures to match for socioeconomic status and to consider whether seemingly matched samples such as college students in fact represent comparable segments of their respective ethnic groups. For example, Hispanic college students may be much less typical of the general Hispanic population than are Anglo college students.

Several assumptions underlie such cross-cultural research. The distinction commonly drawn in cross-cultural psychology between etic and emic categories (Berry, 1969; Olmedo, 1979; Triandis, Vassiliou, Vassiliou, Tanaka, & Shamugam, 1972) is a useful one through which to examine these assumptions. The former (etic) describes constructs applicable across all cultures, while the latter (emic) deals with constructs specific to a particular culture. It seems reasonable to assume that individuals, regardless of culture, make attributions about locus of control, suggesting that the construct of locus of control is an etic one. Nonetheless, one cannot assume that the process by which these attributions of control are made, or their content, or the purposes which they serve are the same across cultures. These issues are emic issues. They operationalize etic level constructs. To establish comparability of meaning across cultures with different languages there are two issues that require attention. The first, translation equivalence, has to do with the linguistic accuracy of the translation. Brislin (1970) has suggested a method



(back-translation) whereby the agreement of the original and its translation can be checked.

The second aspect of comparability is the cultural fit of the items, and therefore, of the overall measure. This concern focuses on whether the items used to assess locus of control in the researcher's culture coincide with those that would be present if the measure had originated in the host culture; or on whether translated items are understandable and reasonable in that second culture. Face-value judgments of cultural fit made by members of the host culture, and comparisons of the psychometric and factorial properties of the items in each language must be made in order to interpret the similarities and differences that emerge. Ideally, it is desirable to have measures originated in each culture and applied in the other so that etic and emic aspects of the construct can be teased out (Irvine and Carroll, 1980).

Such cross-analyses could serve to reduce the tendency toward "imposed etics" (Berry, 1969; Olmedo, 1979). Essentially, etic constructs are imposed whenever explanatory concepts as operationalized in one culture are used to assess and explain phenomena or outcomes in another. To hypothesize that Hispanics are "external" based on an evaluation of Hispanic cultural values from an Anglo-American cultural framework (e.g., the counternormative explanation described earlier) may provide a confounded and invalid explanation of locus of control as it is structured and operates within Hispanic cultures. In fact, Garza and Widlak (1977) compared the factor structures of I-E responses of Chicano and Anglo college students as a means of assessing whether the scale can be considered to be culturally equivalent. They found only partial equivalence and argued accordingly that such differences can account for contradictory findings as to whether Hispanics or Anglos are more external. Diaz-Loving and Andrade-Palos (1984) conducted a series of three studies using fifth and sixth grade children in Mexico City starting with the Locus of Control Scale for Children developed by Nowicki and Strickland (1973). They administered the scale, factor analyzed responses, then developed new items to fit each factor's conceptual definition. They readministered the scale and repeated that process. Their final result was a scale which is congruent with a multidimensional conception of locus of control. Further, it involves three major factors, fatalism, instrumental, and expressive. The former two have cross-cultural generality; the latter seems to represent a nearly unique (emic) mode of control of Mexican children.

The use of an I-E measure not derived within Hispanic cultures clearly presents limitations and increases the tendency to rely on explanatory concepts derived in Anglo culture (i.e., to impose etics). Nevertheless, a translated measure can also provide useful information (Berry, 1980). Even items that, on the surface, do not seem to reflect situations typically encountered or similarly experienced in Hispanic cultures are interpreted in some manner, and acted on by a Hispanic respondent. Thus far, cross-cultural psychology has generally ignored the process undergone by test takers as they respond to foreign items, regardless of the relevance of those items to their lives. It is almost as if it is assumed that the

“culture” (in reified form) responds rather than the individual, and that culturally incongruous situations can, therefore, elicit no sensible response. This situation is in fact logically not the case. Culture is a dynamic set of beliefs and values constantly applied to the evaluation of events, both the usual and unusual, and then recreated on the basis of the results of its application.

Test items are understood and responses actively constructed by individuals in part via the application of their culture. The cultural tenets that are applied vary with the individual as each person processes and uses these tenets in unique ways. In other words, individual differences exist within cultural groups. In a forced-choice format, then, the respondent can be faced with (a) two culturally incongruent alternatives; or (b) one culturally congruent alternative along with one culturally incongruent alternative; or (c) two culturally congruent alternatives. In the first case, test-taking people need to decide, beyond or excluding the cultural tenet invoked, what they believe most likely or most true. In the second, they must determine whether the cultural tenet alone, or the cultural variant constitutes the most likely or most true alternative. In the last case, their responses represent most accurately their unique experience as individuals within their own culture.

That approach provides a useful and important analytical framework as an extension of the Lefcourt view that “the analyzed perception of control is a process” (1976, p. 153) that can be analyzed in terms of constructed patterns of attributions. Specifically, it provides a basis for examining this process across cultures in a more discerning fashion than would be possible by considering only generalized, locus of control construct scores.

In the present study the focus has been on extending the concepts and operational definitions developed in Anglo culture to a Hispanic culture. The I–E scale has been used as part of a battery proposed by Tyler (1978) to assess components of a configural model of psychosocial competence. This model advances a view of people as origins (deCharms, 1973) and posits that individuals develop more or less effective ways of interacting with their world. These modes of interaction are seen as involving three sets of attributes: self attributes, self-world attributes, and behavioral attributes. The patterns of these attributions relate to the individuals’ competent functioning in the world. The I–E scale is used by Tyler as a measure of self-attributes while the BAPC assesses the behavioral attributes of psychosocial competence. Research in the United States has confirmed the validity and utility of such a model and suggests that the Rotter I–E scale and the BAPC scores have unique and interactive contributions in assessing psychosocial competence (Tyler, 1978; Tyler & Pargament, 1982).

Tyler, Gatz, and Keenan (1979) posit an individually “constructed, cognitive view of internality–externality attributions” (p. 34) and suggest that different groups may in fact process (i. e., cognitively construct) the forced choice alternatives on the Rotter I–E Scale in different ways. They have provided an analysis of the process of responding to the specific I–E item structures. Individuals are seen as actively integrating and acting on constructed patterns of self-world attributions within the context of their ongoing experiences. This item structure analysis

approach was used in conjunction with factor analysis to examine the responses of U. S. high school students to the Rotter I-E Scale. They found three factors. The first factor concerned choosing between individual active agent control and no control in all life areas. The second concerned confronting or yielding to the system, to those in power. The third focused on the role of luck versus hard work in individuals' lives. Yet when the analyses of the male and female students were analyzed separately they found patterns that fit together with results from previous sex-difference studies and with socialization patterns of males and females in Anglo-American culture. For example, they found that high school girls' choices "reflect a view of the world as made of situations in which, once chance or fate has 'lined things up,' they can behave internally and create their desired outcomes" (pp. 33-34). The high school boys' choices, on the other hand, involved internal active agent control over task, but not over personal or system, areas of their lives. The authors concluded that the constructivist factor approach to I-E data goes beyond a unidimensional or multidimensional attribute view of locus of control to provide a more individualized interpretation of I-E choices as active attributional constructions.

It may be at this level of specification of respondent characteristics that the emic aspects of locus of control emerge. Díaz-Guerrero (1977) suggests that part of the dissonance between U. S. and Mexican psychology, and one reason for U. S. psychology's lack of cultural generalizability, centers on Anglo America's concern with the individual and Hispanic America's concern with the family as vehicles for actualization. Such a contrast suggests differences across cultures in the components of life experiences (emic) which are identified as contributing to a more general (etic) attribute (e. g., locus of control).

The present study provides a basis for an initial analysis of how I-E items that are relevant to the Anglo-American culture are processed (understood and reconstructed) by Hispanics. It allows for structural comparisons to determine how, given these stimuli, Hispanics and Anglo Americans construct locus of control attributions. In the long term, such analyses will facilitate the understanding of those aspects of outcome and process with regard to locus of control attributions that are Anglo or Hispanic emics from those aspects that are Anglo or Hispanic etics. They will also provide a means of identifying at what levels of abstraction locus of control attributions have process as well as internal and external statistical coherence.

## METHOD

### Participants

A total of 246 students (175 females and 71 males; 34 Blacks and 210 Whites) participated. Respondents were undergraduates enrolled in introductory psychology courses at the University of Puerto Rico, Rio Piedras campus. Data collection took place the first week of the Spring 1979 semester.

## Instruments

*Rotter locus of control scale.* The Rotter I–E Scale was translated using the back-translation method suggested by Brislin (1970). The test was initially translated into Spanish by a professional translator, and then translated back into English by one of the authors who was blind to the original English version.<sup>2</sup> The Hispanic authors then edited the Spanish translation to ensure the best possible blend of accuracy of meaning and cultural fit in phrasing.

The I–E scale formed part of a battery including Tyler's Behavioral Attributes of Psychosocial Competence (BAPC) which was translated in the same manner as the I–E scale and is discussed in detail in a separate article (Otero, Tyler, & Labarta, 1986), the Langner Symptom Checklist (LSC), and a questionnaire to obtain demographic data. Both the BAPC and the Rotter I–E scale form part of the battery proposed by Tyler (1978) to assess components of a configural model of psychosocial competence. Most important to the present discussion is the information obtained regarding the structure of the I–E scale and the interrelationship of the variables in question in another culture.

*The Langner Symptom Checklist (Langner, 1962).* The LSC consists of 22 diagnostically significant psychological symptoms. Respondents admit, deny, or rate the degree to which specific feelings, physical symptoms, or behaviors are present. Scores are the summation of endorsement of symptoms yielding an index of no, mild, moderate, or severe impairment. Its ability to discriminate between psychiatric patients (139 in- and out-patients) and non-patients (72 persons interviewed by psychiatrists and termed “well” — Langner, 1962) was significant at the .01 level, and checklist scores correlated .80 with a rating of overall psychiatric impairment (Langner, 1965). More recent studies (Johnson & Meile, 1981) have provided substantial evidence in support of the index as a predominantly unidimensional indicator of psychological stress. The LSC has been translated into Spanish and has been previously used in cross-cultural research. Different samples within and between cultures have been found to report different levels of symptoms. Nevertheless, within each sample a consistent pattern of relationship between number of symptoms reported and other indicators of psychological stress has been found (Johnson & Meile, 1981; Langner, 1965). The LSC serves as a criterion measure since previous I–E research shows that at least moderate degrees of internality are related to the endorsement of fewer psychological symptoms.

## Grade-point Average (GPA)

GPA (reported as a letter grade) and year in school were also used as criterion variables. GPA was taken as a gross measure of academic achievement. It has also

<sup>2</sup>Translators and back-translators were Teresa Labarta Chaves, Margarita Labarta, and Rafael Otero; Donna McNally and Aurora Katterjohn made necessary changes in the translation.

been found to be correlated in Anglo-American samples with at least moderate degrees of internality (Lefcourt, 1976, 1984; Tyler, 1978; Tyler & Pargament, 1982).

## RESULTS

The analyses conducted examine three issues: (a) the psychometric properties of our Spanish-language Rotter I-E scale; (b) the relation of this Spanish language I-E scale to other variables; and (c) the factor structure of the Spanish language I-E scale. The results of each set of analyses are presented separately.

### Psychometric Properties of the Spanish-Language I-E

An item analysis yielded correlations ranging from .17 to .51. Four items (4, 5, 6, and 20) had item-total score correlations of less than .25. KR-14<sup>3</sup> reliability was .65. The mean score for these students was 10.25, a figure that falls within the range of means for comparable U.S. college student samples for whom average scores have ranged from 7.38 to 11.44 (Lefcourt, 1976).

### External Criteria for Spanish-Language I-E

As noted earlier the I-E response patterns being scrutinized in this study were collected as part of a broader study investigating the applicability of Tyler's hypothesized psychosocial competence configuration to a Puerto Rican college population (Otero et al., 1986). Demographic and test score data as well as analyses of the relations between demographic variables and Spanish-Language Rotter I-E and Tyler BAPC scores are reported in greater detail in that article. For present purposes only the findings central to understanding the I-E patterns being analyzed will be summarized. First, those analyses indicated that the Rotter I-E and BAPC mean scores obtained are consistent with those found with USA college student samples. To assess the individual and joint effect of the BAPC and I-E scores with sex, race, public-private high school, year in school (sophomore through senior), age, fathers' and mothers' occupations, and birthplace, multivariate analyses were performed. None of these multivariate analyses were statistically significant nor were the univariates for the I-E; however more advanced students did have significantly higher BAPC scores.

Multivariate analyses were conducted to test how these I-E and BAPC measures related to the individual's psychological and academic functioning. The

<sup>3</sup>The Kuder-Richardson-14 reliability formula is equivalent to the KR-20 except for minor calculation differences (Kuder & Richardson, 1937). It was used in this study to provide comparability with the earlier Tyler et al. (1979) study.

Langner Symptom Checklist was used to divide the sample into high (6+) and low (0 to 5) symptomatology groups. This is a conservative use of the LSC in which scores of 5+ are considered to indicate significant symptomatology (Johnson & Meile, 1981; Langner, 1962). Those analyses indicated that

students who were more internal and actively planful were also more psychosocially competent on the criteria used. They made better grades and exhibited lower levels of physical and psychological symptomatology. Grades were more directly related to level of internality; absence of symptoms to active planfulness. However, there was an interaction effect between internality and active planfulness in relation to a combined criterion of low symptomatology and high grades. In addition students at more advanced year levels in college were significantly more actively planful. (Otero et al., 1986)

Univariate analyses indicated that low scorers on the Langner had significantly lower mean Spanish I-E scores than high Langner scorers. Further, high GPA subjects were significantly more internally oriented than low GPA subjects. These results are summarized in Table 1, which has been abstracted from Otero et al.

**Table 1**

Means, Standard Deviations, and Analysis of Variance for Langner Symptom Checklist (LSC) and Grade Point Average (GPA)

Measure	Score	<i>M</i>	<i>SD</i>	<i>n</i>
LSC	0 to 5	9.70	3.52	132
	6 or more	12.10	3.13	29
GPA	A	8.76	3.44	34
	B	10.11	3.58	171
	C	10.94	3.29	36
Comparison of I-E scores of high and low scorers on LSC and GPA				
Measure	<i>df</i>	<i>F</i>		
LSC	1, 159	11.54**		
GPA	2, 238	3.45*		

*Note.* From "A configuration of psychosocial competence in a Puerto Rican college sample" by R.F. Otero, F.B. Tyler, and M. M. Labarta (1986), *Revista Interamericana de Psicología/Interamerican Journal of Psychology*, 20.

\**p* < .01

\*\**p* < .001

(1986). It should be noted that the *ns* reported vary for different analyses, as not all of the respondents completed all of the scales.

Intercorrelations between the measures administered (I-E, BAPC, and Langner) were also computed. Both the I-E and the BAPC correlated moderately with the Langner (I-E-Langner  $r = .33, p < .01$ ; BAPC-Langner  $r = .32, p < .01$ ) and slightly less so with each other (I-E-BAPC  $r = -.23, p < .05$ ). These relationships are similar to though not as strong as those found with Anglo-American samples (Tyler, 1978; Tyler & Pargament, 1982); that is, internality and an active planful approach to life events are moderately related to each other and to lower psychological symptomatology.

### Factor Structure of the Spanish-language I-E

Responses to the Rotter I-E were factor analyzed using the same procedure as that followed by Tyler et al. (1979) to provide for comparability. Specifically, a principal-components procedure and varimax rotation were used and an eigenvalue criterion of 1.00 served as a cutoff point for inclusion of factors. That procedure yielded nine factors which accounted for 58% of the variance. Twenty-two of the 23 scale items were included although none of the resulting factors consisted of more than four items (Table 2). In contrast, such analyses with Anglo American samples typically yield three or four factors and include at most two thirds of the items. Evidently for these Puerto Rican students their factor patterning does not conform to that of Anglo-American samples even though the psychometric properties of the I-E and its relationship to other measures are consistent with those typically found in Anglo-American samples. Rather, their responses indicated patterns of item coherences that integrated internal and external attributions in ways that are distinctly different. The nature of those distinctive patterns can be seen by examining the factors obtained and reported in Table 2 and comparing them with the structure of factor patterns obtained in Anglo-American studies.

A number of factor analytic studies with Anglo-American samples have yielded three general factors: personal control, control ideology, and control over political and world affairs. Personal control items deal with specific individual wants or with explaining the outcomes in one's life. Control ideology items refer to more general beliefs about outcomes (e. g., people get what they deserve). Political and world affairs items concern the potential of individuals controlling such general events.

A detailed structural analysis of the I-E items has been provided by Tyler et al. (1979). Their work has provided a basis for identifying more precisely the ways individuals construct their control attributions. Specifically, that analysis indicates that the decision to agree or disagree with each item alternative involves making choices that involve four major dimensions. Respondents must choose how much (relative to the other item alternative) they agree with a statement about whether

**Table 2**  
**Factor Loadings of the Spanish-language Rotter I-E Scale\***

Item	Factor								
	1	2	3	4	5	6	7	8	9
2		.75							
3	.67								
4									.64
5					.43	.48			
6			.63						
7				.77					
9				-.50					
10							-.70		
11						.63			
12		.33							
13									.67
15			-.61						
16									
17		-.63							
18						-.72			
20				.33	.63	-.31			
21			.77						
22		.80							
23							.80		
25								.71	
26					-.70				
28								-.63	
29		-.41	.31	-.36					

Note: Filler items have been omitted.

\*Only loadings > .30 are included in this table.

(a) they as individuals or people in general (b) are active agents, passive agents, or victims (c) in dealing with an activity that is personally controllable, collectively controllable, controllable by powerful others, or not controllable (d) in an area of their lives that is personal, task oriented (school, work, etc.), or general (world affairs, life, etc.).

When the factors in the present study were subjected to analysis within that framework no clear and internally consistent factor patterns emerged. Rather most of the factors seem to be made up of a small number of items which are somewhat heterogeneous or which contain items that involve a rejection of similar



alternatives endorsed in other items in that factor. Further, the amount of variance accounted for by the separate factors ranges only from 13% (factor 1) to 5% (factor 9). Specifically, in five of the factors at least one item has a negative loading that contradicts the others. For example, in Factor 1 which includes four items, items 3, 12, and 22 load positively toward individual control of political and world affairs; item 17 loads negatively. That factor is somewhat comparable to the political and world affairs factor found in U. S. studies and to the general systems factor that Tyler et al. (1979) found among their total sample. Yet in those other instances there has been a consistent direction in the loading of the items. The other factors found do not correspond as directly to those found in other studies but also contain apparent contradictory choices. Two of the three Factor 2 items (2 and 15) concern individual luck but load in opposite directions. Factor 5 contains two oppositely loaded items (20 and 26) about personal responsibility for having friends plus one item on academic unfairness and chance. Factor 7 contains two items (10 and 23) that concern work and academic success but load in opposite directions. Factor 8 contains two items (25 and 28) that concern personal control of one's life and load in opposite directions.

Two other factors do reflect contrasting but interrelated control orientations to different areas of events. Factor 4 contains two items (7 and 20) that concern individual control over being liked. They load oppositely to the other two items (9 and 29) that concern fate generally and also political affairs. Factor 6 includes an item about control of academic outcomes (5) and one about hard work and success (11) that load oppositely to items about fate in life (18) and having friends (20).

It is only on two factors that attributional coherence of item structures and consistency of factorial loadings are found. Factor 3 included three items (6, 21, & 29) that load consistently on acceptance or rejection of people's roles as victims of individual and world events. That factor may have some correspondence to Díaz-Loving and Andrade-Palos' (1984) *fatalism* factor among Mexican children. Factor 9 includes two items (4 and 12) that load in the same direction and involve choices about whether individuals' merit and power are generally more effective than powerful others and the world's indifference.

One additional analysis provides further indications of a tendency among these subjects to endorse opposite attributions with regard to similar choice conceptions. On two items over 80% of the sample endorsed the internal alternative; on two somewhat comparable items, over 80% endorsed the external one. Specifically, on item two, 95% endorsed that "people's misfortunes result from the mistakes they make" and rejected bad luck as a contributing factor. On item four 84% endorsed that "in the long run people get the respect they deserve in the world" rather than endorsing that such worth may go unrecognized in spite of effort. In contrast on item 15 only 18% endorsed that "in my case getting what I want has little or nothing to do with luck," with 82% endorsing that "we might just as well" flip a coin. Further on item 26 only 18% endorsed that "people are lonely because they don't try to be friendly" while 82% endorsed that effort is of little avail, "If they like you, they like you."

## DISCUSSION

The results of the present study have indicated that this Spanish-language I-E scale has moderate internal consistency, all of its items correlating positively with the total scale score. Further it has discriminated the functional level of subjects in ways similar to, though not as strongly as, the English language I-E in the areas tested. Specifically, lower symptomatology, higher GPA, and a more active planful orientation as measured by the BAPC were related to endorsement of internality. As noted earlier, the I-E scale has most often been considered a unitary scale so that analyses have focused only on the scale's internal consistency, reliability, and total score relationship to criteria. At that level, this scale does seem to be valid for this Puerto Rican sample. However, some cross-sample differences were identified. The Spanish-language I-E scale scores in this college student sample seemed unaffected by demographic variables that have been found to affect these scores in Anglo-American and Hispanic samples (Lefcourt, 1976, 1984; Phares, 1976). This finding may be a function of the relatively restricted range that is inherent in any college student sample. It may also suggest that the sociological variables critical in the U. S., such as race and SES, operate differently in Puerto Rico and in a manner that does not affect how individuals construct their responses to attributional choices to the same degree even in a college student sample.

The structure-factor approach used has also permitted identifying apparently conceptually contradictory patterns in nine statistically coherent, though much less integrated, factors in this Puerto Rican sample. These findings suggest that two types of cross-cultural factors are contributing to these differences in findings. The first is statistical in that with a decrease in similarity between samples, relationships among variables typically decline. The second is conceptual and relates to the emic-etic issues addressed throughout. This second interpretation suggests that life-experience factors produce somewhat different psychosocial patterns in different cultures. Such differences are not discernible from traditional item analysis which provides little information with regard to the understanding of item content and the structuring of responses by the respondent.

It is the structure-factor analysis model outlined earlier which has provided a useful framework for identifying different levels and configurations of response processing. Identifying these differences in turn can enable us to advance our understanding of how individuals with different experiential backgrounds construct their distinctive conceptions of the controllability of life's events. For example, the sample of Tyler et al. (1979) yielded valid total I-E scores and three coherent general factors when analyzed as a group. When the data for males and females were analyzed separately they also yielded different coherent factor patterns whose structures seemed to correspond to culturally typical sex-related socialization patterns. In short, the finer levels of analysis each yielded a few factor patterns that were both statistically and conceptually coherent. In contrast in this sample numerous locus of control factors with fewer items each and less conceptual coherence were found.

Nevertheless it has seemed possible to establish some cross-cultural conceptual and statistical (etic) coherence of locus of control between some Anglo-American and some Hispanic samples. For example, Garza and Widlak (1977) found partial cultural equivalence between locus of control factors of Chicano and Anglo-American college students. Díaz-Loving and Andrade-Palos (1984) found that they could progressively adapt the Nowicki-Strickland Locus of Control Scale for Children and create a multidimensional locus of control scale with two cross-cultural equivalent factors and one factor somewhat unique to Mexican children. The findings from these studies and the present one suggest the importance of conducting further studies which attend to the psychosocial aspects of constructing locus of control attributions in disparate Anglo-American and Hispanic samples. Simultaneous evaluations of process and outcome variables can begin to define Anglo-Hispanic and Hispanic-Hispanic matrices of shared (etic) and unique (emic) control attribution properties. Such matrices will provide a clearer understanding of how individuals from different cultures go about the process of constructing locus of control attributions and about those aspects of that process that appear generalizable. The completion of such matrices, however, will also require the extensive use of non-Anglo-derived as well as Anglo-derived measures within and across a variety of cultures. Our Spanish-language I-E scale appears to be an Anglo-derived instrument with potential utility in such cross-cultural research. Overall the measure is moderately internally consistent and predictively useful. The availability of the structure-factor approach provides an additional means for achieving that challenging objective.

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## APPENDIX

### Spanish-Language Translation of the Rotter I–E Scale

#### Inventario Personal Sobre Algunas Situaciones Sociales

Este es un cuestionario para determinar cómo ciertos acontecimientos en nuestra sociedad afectan a distintas personas. Cada ítem consiste de dos oraciones denominadas *a* y *b*. Escoja entre estas alternativas, la que más fuertemente usted crea (en su opinión) describa la situación expuesta. Marque la alternativa (*a* o *b*) que indique su opinión en la hoja de respuestas. Cerciórese de escoger la alternativa en la que verdaderamente crea, en vez de la que piensa que deba de escoger o la que quisiera que fuese verdad. El presente cuestionario es una medida de creencias personales y por lo tanto no hay respuestas correctas o incorrectas.

Por favor conteste con cuidado, pero sin detenerse particularmente en ningún ítem. Tal vez descubra que en algunos casos usted crea en ambas alternativas o que no cree en ninguna de las dos. En esos casos escoja la alternativa que más se

acerque a lo que usted cree y en lo que a usted respecta. Trate de contestar a cada ítem independientemente al hacer su selección, no se deje afectar por sus selecciones anteriores.

### Recuerde

Escoja la alternativa que usted personalmente crea sea la más verdadera.

#### Ítem\*

2. *a)* Muchas de las desdichas (cosas malas) que le pasan a la gente se deben a la mala suerte.  
*b)* Las desdichas (desgracias) de la gente se deben a equivocaciones que cometen.
3. *a)* Una de las razones principales por qué hay guerras es porque la gente no se interesa lo suficiente en política.  
*b)* Siempre habrá guerra, no importa cuánto trate la gente de evitarlas.
4. *a)* A la larga en este mundo la gente recibe el respeto que se merecen.  
*b)* Por desgracia, el valor de un individuo a menudo pasa inadvertido, a pesar del esfuerzo que haga.
5. *a)* No tiene sentido la idea de que los maestros sean injustos con los estudiantes.  
*b)* La mayoría de los estudiantes no se dan cuenta del grado en que la casualidad influye en sus notas (calificaciones).
6. *a)* No se puede ser un dirigente eficaz sin haber tenido las oportunidades adecuadas.  
*b)* Las personas capacitadas que fracasan en hacerse dirigentes no han aprovechado bien las oportunidades que han tenido.
7. *a)* No importa cuánto se esfuerce uno, uno no le va a caer bien a alguna gente.  
*b)* Las personas que no pueden hacerse simpáticas a otras, no saben llevarse bien con los demás.
9. *a)* A menudo me he encontrado que lo que va a pasar pasa.  
*b)* A mi me ha ido mejor decidiendo el camino a seguir que confiando en el destino.
10. *a)* Para un estudiante bien preparado es muy raro que haya un examen injusto.  
*b)* Muchas veces las preguntas de los exámenes tienen tan poca relación con lo estudiado en el curso que es inútil estudiar.

\*Filler items are not listed. They may be obtained by contacting the authors. The letter indicating the external alternative for each item is italicized.

11. a) Para tener éxito hay que trabajar mucho, la suerte tiene poco o nada que ver.  
b) El conseguir un empleo depende principalmente de estar a mano en el momento justo (tener la suerte de estar en el lugar preciso en el momento preciso).
12. a) El ciudadano promedio puede influir en las decisiones del gobierno.  
b) Unos pocos que están en el poder dirigen el mundo y no hay mucho que un infeliz ciudadano pueda hacer.
13. a) Cuando hago planes (proyecto algo), casi siempre puedo llevarlo(s) a cabo.  
b) No siempre es prudente planear con mucho adelanto porque muchas cosas salen bien o mal según la suerte.
15. a) En mi caso, el conseguir lo que quiero tiene poco o nada que ver con la suerte.  
b) Muchas veces pudiéramos tomar decisiones tirando una moneda.
16. a) El llegar a ser jefe depende a menudo de tener la suerte de estar en el lugar preciso primero.  
b) El llegar a ser jefe depende de tener habilidad y destreza, la suerte tiene poco o nada que ver.\*\*
17. a) En cuanto a los asuntos mundiales, la mayoría de nosotros somos las víctimas de fuerzas que no podemos entender ni dominar.  
b) Tomando parte activa en los asuntos políticos y sociales, la gente puede controlar los acontecimientos mundiales.
18. a) La mayoría de la gente no se da cuenta del punto hasta el cual sus vidas resultan controladas por acontecimientos accidentales.  
b) La suerte en realidad no existe.
20. a) Es difícil saber si uno le cae bien a otra persona o no.  
b) El número de amigos que uno tiene depende de lo simpático que uno es.
21. a) A la larga lo malo que nos ocurre se equilibra con lo bueno.  
b) La mayor parte de las desdichas son el resultado de la falta de habilidad, la ignorancia, la pereza o las tres a la vez.
22. a) Si nos esforzamos bastante podemos eliminar la corrupción política.  
b) Es muy difícil que la gente tenga control de lo que hacen los políticos en sus cargos.
23. a) A veces no comprendo cómo los maestros deciden las notas que dan.  
b) Hay relación directa entre las notas que me dan y cuanto he estudiado.

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\*\*This item has been modified from the original Rotter scale (Tyler, Gatz, & Keenan, 1979).

25. a) Muchas veces me parece que tengo poca influencia en lo que me pasa.  
b) Me es imposible creer que la casualidad o la suerte tienen un papel de importancia en mi vida.
26. a) Una persona que se siente sola es porque no trata de hacer amigos.  
b) No vale la pena esforzarse en complacer a otras personas, si uno les cae bien.
28. a) Lo que me pasa es obra mía.  
b) A veces me siento como si no tuviera suficiente control en cuanto al rumbo que está tomando mi vida.
29. a) La mayoría de las veces no comprendo por qué los políticos se comportan como lo hacen.  
b) A la larga la gente es responsable del mal gobierno tanto a nivel nacional como local.

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## RESUMEN EXTENSO

### Atribuciones de Locus de Control en Una Muestra Puertorriqueña

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Se puso a prueba una traducción al español de la Escala de Internalidad y Externalidad (I-E) de Rotter con un grupo de estudiantes universitarios puertorriqueños. Se encontró que tiene consistencia interna moderada y que arroja una distribución de puntajes comparable a muestras anglosajonas similares. El nivel de internalidad está relacionado directamente con la planificación activa, las notas escolares más altas y los niveles más bajos de sintomatología, los cuales también caracterizan a las muestras anglosajonas. Un análisis estructural-factorial de las respuestas de I-E resultó en nueve factores con coherencia conceptual limitada y coeficientes de regresión (*loadings*) contradictorios de los ítems. Estos hallazgos sugieren que el constructo de locus de control posee alguna generalidad transcultural anglo-hispanoamericana. Sin embargo, a niveles más específicos (émicos), el proceso de construir atribuciones de locus de control es substancialmente diferente e implica maneras de hacer atribución de causa ligeramente distintas y maneras particulares de expresarlas. Se sugiere que estudios futuros que propongan identificar semejanzas (éticas) y diferencias (émicas) transculturales en las atribuciones de locus de control, presten atención a la naturaleza de los procesos que la gente utiliza para construir atribuciones.

## **A Configuration of Psychosocial Competence in a Puerto Rican College Sample**

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This study reports an initial effort to use concepts from F.B. Tyler's psychosocial competence model in a Hispanic cultural framework. That model hypothesizes psychosocially competent individuals to be marked by a sense of internality, trust, and active coping. A group of 302 Puerto Rican college students completed the Rotter I-E scale, the Behavioral Attributes of Psychosocial Competence measure (BAPC), the Langner Symptom Checklist (LSC), and a general sociodemographic questionnaire. The general pattern of results supported the BAPC as an instrument that reliably assesses the behavioral component of the competence configuration. The results endorsed the model as broad enough to have validity in a different (non-Anglo) cultural framework. Within this sample, an internal, self-efficacious, active-coping, high-initiative orientation characterized students with more years in college, students with higher grades, and students reporting fewer symptoms. Furthermore, this ini-

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tial use of the model in a Puerto Rican milieu not only suggests transcultural similarities in the attributes highlighted by the competence perspective but also suggests culturally syntonetic differences in the behavioral expression of these attributes.

During the past two decades researchers interested in positive mental health (Jahoda, 1958), effectance motivation (White, 1959), ego development (Loevinger, 1976), and maturity (Heath, 1977) have introduced and developed new concepts and studies in the field of psychosocial competence. Recently, Tyler (1978, 1979, 1984; Tyler & Gatz 1977; Tyler & Pargament, 1982) advanced a model conceptualizing individual human functioning as a configuration of psychosocial competence.

Tyler has based this hierarchical configuration of self, self-world, and behavioral attributes on the assumptions that individuals, in part, actively construe their lives and that living can be characterized as more or less effective interaction with one's external and internal environments. In a stable and nonhostile environment, psychosocially competent persons will view themselves as moderately efficacious and also will see themselves in a positive light, views that lead to their self-perception of causal importance—that is, of being responsible for their own acts and outcomes. Competent individuals will maintain a pattern of self-world attributions characterized by a moderately optimistic trust that underlies constructive patterns of interaction with the world. Finally, they will also exhibit behavioral attributes that are characterized by active coping, high initiative, and a planful approach to living. Theorists and researchers have paid little attention to this aspect of behavior. It is given major emphasis here.

Tyler developed the *Behavioral Attributes of Psychosocial Competence* (BAPC), an instrument to tap the behavioral dimension of competence. As used in the United States, the BAPC has been found to differentiate overall quality of life functioning within a variety of samples ranging from high school students to the elderly. Tyler and his colleagues (Gatz, Tyler, & Pargament, 1978; Tyler, 1978, 1979; Tyler & Gatz, 1977) obtained results from a sample of high school students participating in a counseling program. Teachers were asked to differentiate students who were “generally getting their lives together” (exemplary), and groups of students who were having “difficulties in getting their lives together” (marginal). The BAPC, Rotter I–E, Guring I–E, and Rotter Trust scales were among the measures administered in a pre–post design. The data have confirmed the hierarchical configuration pattern proposed by Tyler. Exemplary students were characterized by a significantly more active set of behavioral attributes and by a more internal orientation. In addition, the different patterns of change associated with the counseling program were shown to be relevant to the overall competence core. On the whole, the data showed that students with effective coping skills gained more from counseling than those with fewer or no skills. The findings also confirmed the relevance of the configuration to effective functioning. That is,

exemplary students were higher on the BAPC, were more internal, and had competence configuration scores more stably intercorrelated.

To measure the attribute of trust, Rotter (1867, 1980) developed an interpersonal trust scale. Studies using this scale suggest that those who are competent in handling their lives tend to be moderately trusting, but are not gullible or easily deceived. They are also more trustworthy. Studies by Tyler and his colleagues (Evans & Tyler, 1976; Tyler, 1979) support the view that there is an intermediate range of trust that is essential to effectiveness in the world, and that being at either end of the continuum is detrimental to one's general effectiveness. Trust also was found to correlate with active planfulness, primarily among exemplary high school students (Tyler, 1978).

Specifically, Tyler (1978) found that among college populations BAPC, trust, and internality on the Rotter I-E correlated highly among competent college students. Otero (1982) found that more competent college students (those with higher BAPC and trust scores and more internal Rotter I-E scores) responded more constructively to a situation of psychological stress than less competent students. Maish (1977) reported high BAPC scores among Black professionals (when compared to Black college students) and among politically active rather than nonactive Black students.

The most widely used scale measuring self-efficacy is the internal locus of control scale developed by Rotter (1966). More recently Lefcourt (1976) has summarized several hundreds of studies using Rotter's scale and scales derived from it. Those findings are quite complex but suggest strongly that people who are more internal learn more from their experiences, take better care of their health, benefit more from therapy, and increase in internality through therapy. Further, level of internality does change with circumstances and reflects them. Thus, deprived social conditions and punishing external circumstances do lead people to increased externality.

## CROSS-CULTURAL RESEARCH ON PSYCHOSOCIAL COMPETENCE

The Latin American literature has very few studies of psychosocial competence. Rather, researchers have primarily investigated variables such as self-concept, achievement motivation, and locus of control. A number of these cross-cultural studies include atypical or noncomparable ethnic samples so that generalization of results is inappropriate. Hispanics and U.S. Hispanic samples often have been drawn from low socioeconomic strata, from disadvantaged and so-called culturally deprived populations (Kagan & Carlson, 1975; Mingione, 1968; Miranda & Torres, 1958). Their results usually find Hispanic samples to be relatively low in self-esteem, in achievement and self-concept, and high on external locus of control. These findings imply that Hispanic populations are characterized by a passive coping stance and dependent traits (Cabrera, 1964; Díaz-Guerrero, 1967; Holtz-

man, Díaz-Guerrero, & Swartz, 1975; Morales, 1971; Santiago, Cabrera, & Guzmán, 1972).

Other studies have shown that individuals opting to participate in situations characterized by countercultural demand take a more internal approach to life (Cole & Cole, 1974; Cole & Rodriguez, 1978). Additional studies have shown that membership in social class rather than racial or national group is the critical factor in determining academic achievement, educational aspirations, and belief in one's ability to control life (Cole & Cole, 1977; García, Huergo, & Otero, 1977; Ramirez, 1976). These studies suggest that the individual's psychosocial competence may be a function of cultural patterns, countercultural demands or aspirations, and class differences. However, none of the studies addressed itself to the actual process of active coping or the behavioral characteristics involved in this process.

The present study explored (a) the extent to which Tyler's hypothesized psychosocial competence configuration, particularly behavioral attributes and locus of control measures, reliably and validly assesses psychosocial competence in a Hispanic college sample, and (b) the correspondence between these constructs as advanced by the competence model, and the characteristics and values espoused in the Puerto Rican culture.

## METHOD

### Subjects

A total of 302 college students from the University of Puerto Rico, Río Piedras campus, participated in the study (207 female, 95 male). All were enrolled in psychology courses and represented all four academic years.

### Procedures

Four instruments were administered in groups during the first week of the 1979 Spring semester. The voluntary aspect of the study was stressed before each administration.

### Instruments

First, the students responded to a socioeconomic demographic questionnaire, in which they stated their race, age, sex, year in school, and grade point average (GPA), reported as A, B, C, or D. Not all students answered all questions; thus the numbers in Table 1 vary.

The Behavioral Attributes of Psychosocial Competence (BAPC), Form AR, was the second instrument administered, a forced-choice measure designed to

assess the behavioral coping component of the hierarchical personality configuration. However, it is also considered a free-standing measure that assesses the characteristics of a person's competence-oriented behavior across three dimensions: type of activity, phase of activity, and area. Type of activity includes three components: coping stance (the active/passive dimension), autonomy (degree to which there is self-control over interactions), and self-maintenance (degree to which there is effective internal mastery that sustains focusing constructively on the activity). Phase of activity measures three essential phases of ongoing interactions: search and organize (search for meaning and organize goals or possibilities in the interaction); implement (implementation of the necessary actions to achieve goals and derive satisfaction); and culminate (enjoy success or suffer failure from the interaction), conclude (terminate, close off the interaction or event), and redefine (reframe oneself and the situation, now in a new context). The integration of activities throughout their phases is played out in personal, interpersonal, and task areas. Hence, the BAPC measures a complex and interrelated set of coping processes. The BAPC (Form AR; Tyler & Pargament, 1982) consists of 36 items plus 3 fillers, and it is an improved and somewhat shortened form of the BAPC scale, Form A (Tyler, 1978). Form AR correlates with the BAPC Form A ( $r = .90$ ) and yields a Cronbach alpha reliability of .80.

The third instrument, the Rotter I–E scale, is a 23-item, forced-choice measure that assesses the degree to which a person feels in control of and responsible for events in his or her life.

Finally, the students answered the Langner Symptom Checklist (LSC). This scale consists of 22 items dealing primarily with psychophysiological, depressive, and withdrawal symptoms. Throughout the literature, the LSC has been regarded as a part measure of assumed pathological impairment (Johnson & Meile, 1981). A rough indication of the point at which an individual lies on a continuum of impairment (not impaired, mild, moderate, impaired), any score of 6 points or greater was considered as falling within the moderately impaired range for the present study. The LSC has been widely used in the United States (Langner, 1962; Phillips, 1966) and in cross-cultural research (Johnson & Meile, 1981; Langner, 1965). Its reliability and validity are reported in Langner (1962).

### Translation of the Measures

The BAPC was translated in two phases. In the first phase a professional translator translated the BAPC into Spanish. The instrument was then retranslated from Spanish to English. Afterwards, bilingual psychologists<sup>1</sup> at the University of Maryland made minor modifications in the original translation. (The English-language versions were then compared by the developer of the instrument

<sup>1</sup>Margarita Labarta, Donna McNally, Aurora Katterjohn, and Rafael Otero were involved in the translation of the BAPC.

(Tyler) to check the adequacy of the Spanish–English translation). The final draft in Spanish was critiqued by another psychologist at the University of Puerto Rico.<sup>2</sup> A similar procedure was used in translating the Rotter I–E scale.<sup>3</sup>

## RESULTS

Internal consistency of the BAPC was the first issue investigated. Four types of item analysis were performed: (a) each item was correlated with the total score (minus that item); (b) each item was correlated with the total score for the corresponding scale (minus that item); (c) each subscale was correlated with the total BAPC score (minus that subscale); and (d) K–R reliability coefficients were computed.

The correlation coefficients for individual items with the total score of the BAPC minus that specific item ranged from .14 to .52, with a mean coefficient of .33. The mean coefficient for the correlation of each item with its subscale, minus that item (each item figures in three different subscales) ranged from .30 to .59, with a mean coefficient of .50. Finally, the correlation coefficients of each subscale with the total BAPC score minus that subscale ranged from .45 to .80. The mean coefficient for this analysis was .74. The K-R reliability coefficient for the 36-item BAPC was .81. These findings are comparable to those reported by Tyler (1978) and Tyler and Pargament (1982) among college students in the United States, demonstrating that the internal consistency of the scale is comparable for these two samples.

The obtained mean scores and standard deviations for the BAPC are presented in Table 1. In order to assess the influence of the joint effects of the BAPC and the Rotter I–E scores on the set of classificatory variables—sex, race, grade point average (GPA), year in school, and Langner scores—multivariate analyses of variance (MANOVA) were performed. Dividing the sample by sex and race produced no significant differences in grades, year in school, I–E, or BAPC. The MANOVA analyses involving grades and symptom levels with I–E and BAPC scores as predictors are presented in Table 2.

Results (Tables 1 and 2) indicated that BAPC and Rotter I–E scores approached significantly differentiating students by GPA. That is, students with higher grades were those with higher BAPC scores and lower I–E scores.

<sup>2</sup>We extend our appreciation to J.J. Bauermeister of the University of Puerto Rico for revising the BAPC in Spanish.

<sup>3</sup>The translation of the Rotter I–E scale is treated in detail in a separate article. The findings concerning the cultural relevance of the manner in which subjects construct their senses of self-attribution are also treated there in detail. The scope of those findings and their implications for understanding patterns of psychosocial competence and their cultural embeddedness as well as their cross-cultural generality are sufficiently extensive and important that they require additional presentation in their own right.



**Table 1**

Means and Standard Deviations of Puerto Rican College Students on the Behavioral Attributes of Psychosocial Competence (BAPC) and the Rotter Locus of Control (Rotter I-E)

Sample category	BAPC			Rotter I-E		
	<i>M</i>	<i>SD</i>	<i>n</i> <sup>a</sup>	<i>M</i>	<i>SD</i>	<i>n</i> <sup>a</sup>
Total	23.7	5.72	302	10.08	3.57	246
Sex						
Male	23.66	6.02	71	10.04	3.69	71
Female	23.71	5.60	175	10.09	3.54	175
Race						
Black	22.05	5.70	43	9.65	3.69	34
White	23.72	5.74	297	10.12	3.57	210
Grade point average						
A	24.86	7.02	35	8.76	3.44	34
B	24.01	5.43	210	10.11	3.58	171
C	21.68	5.24	50	10.94	3.29	36
College year						
2	22.87	5.16	91	10.63	3.52	68
3	23.38	5.90	132	9.80	3.38	108
4	25.16	6.07	69	9.70	3.86	64
Langner Symptom Checklist (LSC)						
0-5 symptoms	24.12	5.35	157	9.70	3.52	132
6+ symptoms	19.05	5.36	49	12.10	3.13	29

<sup>a</sup>Not all of the students reported their race or grade point average or completed the BAPC, Rotter I-E, or LSC.

However, univariate analyses indicated that it was primarily the I-E scores that contributed to this difference as it was the more internal subjects who achieved the higher GPAs.

Scores on the Langner scale were significantly related (Table 2) to the BAPC and the I-E scores (MANOVA) and to each set of scores independently (univariate analyses). That is, subjects reporting fewer physical and psychological symptoms were also more active copers and held a more internal orientation. A significant two-way MANOVA interaction (Table 2) between LSC and GPA further amplified these results. Table 3 presents the score breakdowns that indicate the form of that interaction. Specifically, among C-average students, those with different levels of symptoms differed relatively little in their below

**Table 2**

Summary of Multivariate Analysis Using the BAPC and the Rotter I-E Scores as Dependent Variables With Langner Symptom Checklist Score (LSC) and Grade Point Average (GPA) as Independent Variables

Independent variables	<i>df</i>	<i>F</i>	<i>p</i>
<b>Grades</b>			
Manova	4, 476	2.03	.09
Univariates			
Rotter I-E	2, 238	3.45	.04
BAPC	2, 238	1.44	.24
<b>LSC</b>			
Manova	2, 158	12.42	.001
Univariates			
Rotter I-E	1, 159	11.54	.001
BAPC	1, 159	19.86	.001
<b>Two-way interaction</b>			
<b>LSC × GPA</b>			
Manova	4, 305	3.10	.01
Univariates			
Rotter I-E	2, 152	2.28	.10
BAPC	2, 152	2.97	.05

average active planfulness and their above average externality. Among B-average students, those with low levels of symptoms were much more actively planful and internal than their counterparts. Among A-average students, those with low levels of symptoms were the most internal and actively planful of all of the students. Those with higher levels of symptoms were also very internal *but* they were the lowest group in active planfulness. In brief, it was those students who were both internal and actively planful who were also making good grades and keeping their lives relatively symptom free.

One final result deserves mentioning. One-way analyses of variance using BAPC scores as dependent variables revealed a significant difference by years in college ( $F = 3.39$ ;  $df = 2, 289$ ;  $p < .04$ ). Students with more years in college reported a more active planful approach to the events in their lives.

## DISCUSSION

Our first step in investigating the competence configuration in a Hispanic student population included the translation of the BAPC and the Rotter I-E scale

**Table 3**

Means and Standard Deviations for the Behavioral Attributes of Psychosocial Competence (BAPC) and the Locus of Control Scale (Rotter I-E) by Langner Symptom Checklist Scores (LSC) and Grade Point Average (GPA)

Interaction effect	BAPC			Rotter I-E		
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
GPA of A						
LSC 0-5	26.00	5.88	22	9.04	3.59	22
LSC 6+	14.75	7.58	4	9.25	5.12	4
GPA of B						
LSC 0-5	24.49	5.11	85	9.55	3.54	85
LSC 6+	20.23	5.42	21	12.90	2.34	21
GPA of C						
LSC 0-5	22.50	5.14	22	10.86	3.21	22
LSC 6+	20.25	5.43	4	10.75	3.30	4

and analyses of their reliability and validity. Results obtained are consistent with those found on U.S. samples (Tyler, 1978; Tyler & Pargament, 1982). Further, mean score comparisons with U.S. college-student samples indicate that the BAPC and I-E score levels of Puerto Rican students in this study are comparable to those of college students in the United States (Tyler & Pargament, 1982). Thus, it seems justifiable to conclude that these scales have sufficiently similar psychometric properties among this sample of Puerto Rican college students to warrant their use in testing the study's hypotheses.

The focus in this study was on assessing the utility of the self and behavioral attributes of Tyler's hypothesized configuration of psychosocial competence for predicting how well Puerto Rican college students would handle their lives and academic situations. As expected, students who were more internal and actively planful were also more psychosocially competent on the criteria used. They made better grades and exhibited lower levels of physical and psychological symptomatology. Grades were more directly related to level of internality; absence of symptoms to active planfulness. However, there was an interaction effect between internality and active planfulness in relation to a combined criterion of low symptomatology and high grades. In addition students with more years in college were significantly more actively planful.

These patterns are based on cross-sectional data; thus they provide no basis for inferring causality. However, they are consistent with findings from studies in the United States, and they do provide further evidence that there is a functional relationship between internality and active planfulness as components of a configuration of psychosocial competence. Further, those attributes are associated in

this Puerto Rican sample with effectiveness at contending successfully with the personal and academic demands and challenges of being a college student.

These findings provide evidence for conceptualizing and investigating patterns of psychosocial functioning in Puerto Rican and other Hispanic populations. A competence, rather than a deficit, view is used in relation to Anglo populations. Yet it would be unwise to assume that these students do not formulate their psychosocial attributes in ways that reflect their own cultural heritage. Psychologists (Diaz-Royo, 1975 & 1976; Fernandez-Marina et al., 1958; Field et al., 1962; Miranda & Torres, 1958) and anthropologists (Cohen, 1980; Luria, 1964) have written about several central characteristics of the Puerto Rican identity. They have emphasized dignity (*dignidad*), respect (*respeto*), and the wholesome individual (*hombre completo/a*). To act with dignity and respect means following a personal code of ethics that empowers everyday living with an energy from within. Being a wholesome individual denotes a conviction and commitment to self-value and a basic trust to work and live with other individuals. Additional research is needed to enable us to understand how those unique cultural themes are expressed in a fashion that overlaps with the more Anglo-based psychosocial competence configuration identified in the United States. We also need to explore the ways in which those configurations are distinct and identify the strengths and limitations of each configuration. The results of the present study suggest that such research can potentially produce findings of both theoretical and practical significance.

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## RESUMEN EXTENSO

### Competencia Psicosocial en Una Muestra de Estudiantes Universitarios Puertorriqueños

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y

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Se intentó aplicar el modelo de competencia psicosocial de Tyler en una cultura latinoamericana. Dicho modelo plantea la hipótesis que los individuos que poseen competencia psicosocial se caracterizan por poseer un sentido de control interno, confianza en el mundo externo y un enfrentamiento activo en cuanto a los problemas del diario vivir.

Un grupo de 302 estudiantes universitarios puertorriqueños respondió la escala I-E de Rotter, la escala de Atributos Comportamentales de la Competencia Psicosocial de Tyler (BAPC), la lista de Síntomas de Langner (LSC) y un cuestionario general sociodemográfico. El patrón general de los resultados confirmó el BAPC como instrumento de alta confiabilidad para medir el componente comportamental de la configuración de competencia. Además se demostró la amplitud del modelo al tener validez en una estructura cultural diferente, es decir, no anglosajona. Dentro de esta muestra los estudiantes con puntajes más altos se caracterizaron por una orientación interna, autoeficaz, un enfrentamiento activo y alta iniciativa; a su vez, dichos estudiantes manifestaron menos síntomas. Por otra parte, la utilización inicial de este modelo en el medio puertorriqueño no sólo muestra la existencia de semejanzas transculturales en los atributos enfatizados por la perspectiva de competencia, sino que también sugiere diferencias culturales sintónicas en la expresión comportamental de dichos atributos.



## Estereotipos Adscritos al Indígena Mapuche por Adultos no Mapuches de Chile Meridional

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Se investigaron los estereotipos atribuidos al indígena mapuche por adultos no mapuches de la IX Región de La Araucanía, Chile. Una muestra de selección intencionada—compuesta por 144 sujetos clasificados en una matriz 2(Sexo)  $\times$  3(Edad)  $\times$  3(Educación)—evaluó el concepto *individuo mapuche* a través de escalas bipolares. Además los sujetos autoevaluaron su grado de contacto con mapuches. Los resultados revelaron dos dimensiones subyacentes al conjunto de características estereotipadas: *heroicidad y sociabilidad/productividad*. La muestra adscribió un nivel positivo de *heroicidad* y uno negativo de *sociabilidad/productividad* reflejando los estereotipos *valientes guerreros e indios cerrados y flojos*, respectivamente. El grado de contacto resultó directamente asociado a la negatividad de la *sociabilidad/productividad* atribuida. Además, el nivel educacional del atribuyente se asoció a la adscripción tanto de *heroicidad* (en un efecto interactivo con edad) como de *sociabilidad/productividad* (en un efecto principal y otro interactivo con sexo). Se discuten estos resultados en términos del origen histórico de los estereotipos y sus implicaciones en el contacto interétnico y en la identidad nacional del chileno. Se formulan sugerencias para futuras investigaciones.

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Versiones preliminares de este estudio fueron presentadas en el XX Congreso Interamericano de Psicología, Caracas, Venezuela, julio de 1985, y en el Primer Congreso Nacional de Psicólogos, Santiago de Chile, agosto del mismo año.

Expreso mi gratitud a Lucio Rehbein, Eugenia Vinet, Marta Chacón, Araceli Caro y Ricardo Rey, por su valiosa contribución en el desarrollo de este estudio. Extiendo mis agradecimientos tanto a los alumnos que seleccionaron la muestra y administraron el instrumento como a los anónimos participantes que proporcionaron los datos.

Definir las características de la cultura subjetiva (Triandis, 1972) del latinoamericano ha sido una preocupación prevalente en el último tiempo (Marín, 1982). En esta línea, los auto y/o hetero-estereotipos son aspectos de la cultura subjetiva abundantemente investigados (e.g., Banchs, 1982; Buriel y Vásquez, 1982; Marín y Salazar, 1985; Salazar, 1970, 1981; Salazar y Marín, 1977; Santoro, 1975, Triandis, Lisansky, Setiadi, Chang, Marín y Betancourt, 1982).

Aun cuando las subculturas indígenas constituyen un importante elemento dentro de la cultura latinoamericana (ver Gissi, 1984), se advierte una falta de atención en cuanto a la investigación de los estereotipos dados y recibidos por grupos étnicos autóctonos y las implicaciones que tales estereotipos presentan en las relaciones interétnicas. Como un aporte a la superación de esta carencia, el presente estudio examina los estereotipos adscritos a un grupo indígena chileno—los mapuches—por connacionales no indígenas.

Pese a las presiones ejercidas por la sociedad chilena para su asimilación total (Cantoni, 1978; Stuchlik, 1974), los actuales mapuches—también denominados araucanos—pueden ser concebidos como una subcultura con rasgos étnicos distintivos (Bunster, 1964). Esta subcultura difiere de la cultura chilena dominante, entre otros aspectos, por la presencia de una lengua autóctona, una organización política y administrativa de reducciones rurales, una economía agrícola de autosubsistencia, instituciones religiosas y familiares, expresiones artísticas y vestimentas propias. Se estima que los mapuches rurales representan cerca del 30% de la población de la IX Región de La Araucanía, área geográfica donde fue realizada esta investigación.

Las relaciones entre la cultura chilena dominante y la subcultura mapuche se han caracterizado por malentendidos, desacuerdos y conflictos (Cantoni, 1978) con resultados desfavorables para los mapuches (e.g., bajo status, marginalidad social, dependencia económica, prejuicio y discriminación, pérdida de sus tierras, migración en busca de trabajo, fuertes presiones para ser asimilados).

Aunque en general se admite la existencia de estereotipos mapuches en la cultura dominante, la literatura especializada sobre el tema es escasa y, en vez de identificar estereotipos significativos, sólo registra ciertas características aisladas. En este sentido, Saavedra (1971) menciona la atribución de estereotipos positivos y negativos, sin identificarlos, señalando algunas características atribuidas (altivos, valerosos, independientes, atrasados, de escaso desarrollo mental, flojos, salvajes, sucios, inmorales). Además, plantea que el chileno no indígena se autoatribuye estereotipos positivos que adscribe al mapuche. Cantoni (1978) indica sólo características negativas (racialmente inferiores, poco inteligentes, huraños, taimados, flojos, ladrones, borrachos, sucios, incivilizados). Este autor afirma que estas características son las mismas atribuidas a todos los grupos autóctonos americanos. Una excepción la constituye Stuchlik (1974) quien, analizando la evolución del estereotipo a través de la historia nacional, señala tres estereotipos positivos (+) y dos negativos (-), todos atribuidos por la cultura dominante desde una posición altamente etnocéntrica. Estos estereotipos son (a) *valientes guerreros* (+), (b) *bandidos sangrientos* (-),

(c) *indios flojos y borrachos* ( - ), (d) *indios bajo el paternalismo del hombre blanco* ( + ) y (e) *indios que desean estudiar* ( + ). Según este autor, el primer estereotipo y una combinación de los tres últimos tendrían vigencia en la actualidad. Sin embargo, los antecedentes aportados por estos autores, al no fundarse en evidencia generada por investigaciones empíricas, deben ser considerados como proposiciones que requieren ser probadas.

Abundante literatura (ver Marín y Salazar, 1985) señala que la naturaleza de la relación entre dos grupos determina la dirección — positiva o negativa — de los estereotipos que cada grupo adscribe al otro. Además, la naturaleza de la interacción determina el efecto que el grado de contacto produce en la adscripción de estereotipos. Dada la naturaleza conflictiva de la relación entre mapuches y no mapuches, se esperaría encontrar estereotipos negativos cuya intensidad aumente a medida que se incrementa el grado de contacto.

Investigar los estereotipos mapuches no sólo es relevante por la falta de evidencia existente sino también por sus implicaciones en las relaciones interétnicas. La adscripción de características negativas aparece vinculada a prejuicio (Gajardo, 1983) y a conductas discriminatorias (Cantoni, 1978; Gaete, 1980; Munizaga, 1971). Además, la aceptación de estas características por parte de los propios mapuches se encuentra asociada a conflictos de identidad étnica (Cantoni, 1978) y a enfermedad mental concomitante a dificultades de adaptación en zonas urbanas (Biebermann, Barria y Maass, 1984; Biebermann, Barria, Maass y Steil, 1983).

La presente investigación tuvo por objetivo general someter a verificación la existencia de estereotipos mapuches en un sector de la actual cultura chilena dominante. Sus objetivos específicos fueron (a) identificar las características adscritas al mapuche, (b) identificar los estereotipos formados por estas características y contrastarlos con aquellos propuestos en la literatura y (c) establecer si el grado de contacto y otras variables del sujeto atribuyente (sexo, edad y educación) determinan o no la adscripción de los estereotipos.

## MÉTODO

### Sujetos

Participaron 144 sujetos seleccionados intencionalmente según el siguiente procedimiento.<sup>1</sup> A los alumnos de un curso avanzado de psicología se les encomendó buscar sujetos voluntarios que poseyeran determinadas características demográficas establecidas previamente en el diseño de investigación. Además, la búsqueda fue conducida de tal modo que permitiera ir clasificando a los sujetos en una matriz 2(Sexo) × 3(Edad) × 3(Educación) con ocho sujetos por

<sup>1</sup>Las limitaciones derivadas de la selección no aleatoria de esta muestra deben ser consideradas si se pretende generalizar los resultados a sectores más amplios o bien, a otros sectores de la sociedad chilena.

celda. De esta manera los sujetos seleccionados fueron no mapuches, de ambos sexos, con edades entre 20 y 58 años, con algún grado educacional, alfabetos, sin parientes mapuches y con residencia superior a cuatro años en centros urbanos de la IX Región de La Araucanía, Chile. En la matriz de clasificación, los niveles de edad fueron adulto joven (de 20 a 28 años), adulto medio (de 32 a 42 años) y adulto maduro (de 46 a 58 años); los niveles educacionales fueron educación básica, media y superior.

## Instrumento

Se construyó y usó un instrumento émico compuesto por 18 escalas bipolares de cinco intervalos, al estilo del Diferencial Semántico (Osgood, Suci y Tannenbaum, 1957). El concepto *individuo mapuche* fue utilizado como palabra-estímulo. La construcción del instrumento se inició recolectando las respuestas escritas dadas por 127 sujetos frente a la instrucción “Mencione las características que, a su juicio, definen al mapuche”. Los sujetos, estudiantes universitarios, de ambos sexos y residentes en la IX Región de La Araucanía, proporcionaron 416 adjetivos calificativos. Luego de eliminar aquellos adjetivos incomprensibles, se procedió a clasificar a los restantes de modo que todos los adjetivos contenidos en una misma categoría tuviesen igual, similar u opuesto significado entre sí. A continuación fueron construídas las escalas usando el par de adjetivos antonómicos más representativo de cada una de las 20 categorías con más altas frecuencias. En cada par se determinó cuál de los adjetivos era positivo y cuál negativo según la valoración dada en la cultura dominante.

Para verificar la adecuación del instrumento, esta versión preliminar fue examinada por un antropólogo y luego administrada en una prueba piloto a 30 adultos no mapuches, de ambos sexos y de todos los niveles educacionales. En base a la información recogida se elaboró el instrumento definitivo integrado por 18 escalas. Las polaridades de las escalas fueron alternadas para controlar una posible tendencia a responder según preferencias de posición. Para indagar el grado de contacto social que el sujeto creía tener, o haber tenido, con individuos mapuches, se incluyó un ítem con tres alternativas de respuesta (alto, moderado o bajo contacto).

## Procedimiento

El instrumento fue administrado por los mismos alumnos que efectuaron la selección de la muestra. Los sujetos seleccionados respondieron el instrumento en forma anónima e individual, en su lugar de residencia o trabajo. Las instrucciones fueron: “El fin de este estudio es conocer cómo Ud. ve al individuo mapuche; Ud. deberá opinar en qué medida el mapuche presenta determinadas características”. Luego se continuó con instrucciones sobre el modo de respon-

der las escalas bipolares. Además, se incluyó, como ejercicio de práctica, un ejemplo adecuado al concepto a juzgar.

## RESULTADOS Y DISCUSIÓN

### Características Estereotipadas

Con el propósito de identificar las características atribuidas estereotipadamente, los cinco intervalos de respuesta de cada escala fueron combinados en tres categorías: *atribución de la característica positiva* (integrada por los dos intervalos más próximos al adjetivo positivo), *no atribución* (intervalo central de la escala) y *atribución de la característica negativa* (integrada por los dos intervalos restantes). En cada escala se estimó operacionalmente que una característica era estereotipada si la frecuencia de sujetos que la atribuyó era significativamente mayor que las frecuencias de (a) aquéllos que atribuyeron la característica opuesta y (b) aquéllos que no atribuyeron. Para simplificar el análisis estadístico se aplicó la prueba  $\chi^2$  de una vía comparando, en cada escala, sólo las dos categorías con frecuencias más altas.

Como se observa en la Tabla 1, cuatro características positivas y nueve negativas fueron adscritas estereotipadamente. En relación a las características señaladas por Saavedra (1971) y Cantoni (1978), estos resultados confirmaron la existencia de cuatro de ellas (valiente [o valeroso], flojo, porfiado [o taimado] y callado [o huraño]); además, rechazaron dos, una (sucio) por no ser estereotipada y la otra porque la característica que apareció estereotipada (inteligente) es contraria a la propuesta (escaso desarrollo mental o poco inteligente).<sup>2</sup> Por otra parte, estos resultados revelaron ocho características no señaladas por estos autores (feo, serio, desconfiado, pasivo, amistoso, lento, fuerte e inseguro). Es interesante indicar que en las escalas 8 (orgullosa-humilde) y 13 (violenta-calmada)—dos de las cinco escalas que no aportaron características estereotipadas—la muestra tendió a atribuir indistintamente ambas características polares. Este último hallazgo es discutido más adelante. En síntesis, este conjunto de resultados permite sostener que los sujetos adscribieron al mapuche tanto características positivas como negativas.

### Estereotipos

En todos los análisis subsecuentes se utilizaron sólo los datos de las 13 escalas que aportaron características estereotipadas.

A fin de descubrir las dimensiones que subyacían al conjunto de características

<sup>2</sup>Este estudio no incluyó las restantes características propuestas por Saavedra (1971) y Cantoni (1978) porque ellas no cumplieron los requisitos planteados en la construcción del instrumento.

Tabla 1

Distribución de los Sujetos Según Escalas Bipolares y Categorías de Atribución y Valores  $\chi^2$  ( $n = 144$ )

Escala	CN	Categorías				$\chi^2(1)$
		ACN	NA	ACP	CP	
1	<i>Callado</i>	87	25	32	Hablador	25.42***
2	Cobarde	13	46	85	<i>Valiente</i>	11.62***
3	<i>Feo</i>	79	53	12	Lindo	5.12*
4	<i>Serio</i>	76	27	41	Alegre	10.47**
5	<i>Desconfiado</i>	118	7	19	Confiado	71.54***
6	<i>Pasivo</i>	85	27	32	Activo	24.00***
7	No amistoso	42	28	74	<i>Amistoso</i>	8.83**
8	Orgullosa	61	21	62	Humilde	0.01 ns
9	Mentiroso	55	43	46	Sincero	0.80 ns
10	<i>Lento</i>	107	20	17	Rápido	59.59***
11	Malo	10	60	74	Bueno	1.46 ns
12	<i>Porfiado</i>	104	14	26	Adaptable	46.80***
13	Violento	59	31	54	Calmado	0.22 ns
14	Tonto	14	53	77	<i>Inteligente</i>	4.43*
15	Débil	10	30	104	<i>Fuerte</i>	40.86***
16	<i>Flojo</i>	64	41	39	Trabajador	5.04*
17	Sucio	62	51	31	Limpio	1.07 ns
18	<i>Inseguro</i>	69	37	38	Seguro	8.98**

Nota. Las características estereotipadas aparecen impresas en itálicas.

CN = característica negativa; CP = característica positiva; ACN = atribuyen característica negativa; NA = no atribuyen; ACP = atribuyen característica positiva. \* $p < .05$ . \*\* $p < .01$ .

\*\*\* $p < .001$ .

estereotipadas, se comenzó ponderando las respuestas en cada escala mediante la asignación de  $-2$  a  $+2$  puntos a partir del intervalo adyacente al adjetivo negativo. Luego, se calculó una matriz  $13 \times 13$  de índices de distancia  $D$  (Osgood et al., 1957) entre las escalas. Cada índice  $D$  expresa en sentido inverso el grado de semejanza de significado entre dos escalas. El análisis de enlace elemental (McQuitty, 1957) aplicado a la matriz  $D$  reveló dos dimensiones (I y II). La estructura revelada cumplió con la condición normalmente exigida en el Diferencial Semántico para identificar dimensiones (Osgood et al., 1957): Tanto la semejanza media intradimensión I ( $M = 17$ ) como intradimensión II ( $M = 20.8$ ) fue mayor que la semejanza media interdimensiones ( $M = 25.2$ ).<sup>3</sup> Además, ambas dimensiones mostraron una adecuada saturación de significado a juzgar por la distancia media que presentaron las escalas de cada dimensión ( $M I = 15.7$  y  $M II = 15.3$ ) respecto al origen del espacio semántico, punto que indica ausencia total de significado. Para estos últimos datos, el rango máximo posible de valores  $D$  abarcó desde 0 (ausencia absoluta de significado) a 24 puntos (presencia

<sup>3</sup>Para los datos obtenidos en este estudio el rango máximo posible de valores  $D$  abarcó desde 0 (máxima similitud de significado) a 48 puntos (máxima disimilitud de significado).

absoluta de significado). Aun cuando la estructura revelada fue suficientemente nítida y saturada de significado, una correlación entre los índices dimensionales individuales (ver de Mikunsinsky y de Urteaga, 1982) indicó que las dimensiones no eran completamente ortogonales,  $r(142) = .34, p < .001$ .

La interpretación de las dimensiones se basó en la identificación de un significado común a los adjetivos positivos de las escalas integrantes y, además, plausible respecto al concepto evaluado *individuo mapuche*.

*Dimensión I.* Las cuatro escalas que componen esta dimensión (escalas 2, 7, 14 y 15) revelan un significado común de *heroicidad*. Esta dimensión podría ser definida como el grado de disposición percibida en el mapuche a la ejecución de hazañas marcadas por el valor, la astucia y el vigor. La muestra total atribuyó un nivel positivo de *heroicidad* (índice dimensional = +0.72), esto es, adscribió al mapuche una moderadamente alta tendencia a la realización de acciones heroicas. Esta adscripción corresponde al estereotipo *valientes guerreros* propuesto por Stuchlik (1974). Según este autor, este estereotipo—históricamente el más antiguo—habría surgido durante el período de dominio español de los territorios posteriormente chilenos (siglos XVI al XVIII). Además, como ya se señaló, este estereotipo permanecería sin variaciones hasta la actualidad, hecho que la presente investigación confirma. El origen de este estereotipo residiría en la necesidad de la cultura hegemónica de aquel período histórico de explicar, de un modo etnocéntricamente coherente, su reiterado fracaso en la conquista bélica del territorio mapuche.

Siguiendo a Saavedra (1971) es posible proponer que la actual cultura dominante se autoatribuye este estereotipo. La autoatribución se apoyaría en la creencia, en el sentido de mito de descendencia (Smith, 1982), de ser un legado del cruzamiento biológico del mapuche con el español, cruzamiento exclusivo que habría dado origen al chileno.

La permanencia de este estereotipo carece de todo fundamento en la realidad actual de los mapuches puesto que su última actividad bélica fue dominada por el ejército chileno en 1883. Quizás, esta creencia acerca del origen del chileno sea un elemento de la identidad nacional que permita explicar la permanencia de este estereotipo. La cultura dominante necesitaría mantenerlo para justificar su autoatribución. El argumento implícito sería: "Puesto que los mapuches 'son' valientes guerreros (estereotipo) y nosotros, los chilenos, descendemos de ellos heredando sus características (creencia), entonces nosotros también somos valientes guerreros (autoatribución del estereotipo)".

*Dimensión II.* Esta dimensión apareció integrada por dos subdimensiones unidas por la escala 10 (lento-rápido). Las siete escalas que componen una subdimensión (escalas 1, 3, 4, 5, 10, 12 y 18) presentan fundamentalmente un significado común de *sociabilidad*. Esta subdimensión podría definirse como el grado de disposición percibida en el mapuche al establecimiento de relaciones interpersonales positivas. Por su parte, las tres escalas integrantes de la otra subdimensión (escalas 6, 10 y 16) reflejan un significado común de *productividad*. Esta última subdimensión podría ser definida como el grado de disposición

percibida en el mapuche a realizar eficazmente tareas que reporten utilidad o beneficio. La interdependencia de significado de estas subdimensiones permiten denominar a la dimensión II como *sociabilidad/productividad*.

La muestra total otorgó un nivel negativo de *sociabilidad/productividad* (índice dimensional =  $-0.65$ ). Esta atribución revela un estereotipo negativo que adscribe al mapuche una moderadamente baja tendencia tanto al establecimiento de contactos sociales positivos como a la ejecución de tareas productivas. Este estereotipo podría denominarse *indios cerrados y flojos*. El primer componente de este estereotipo—la percepción de sociabilidad negativa—parece no tener antecedentes en la literatura. El otro componente—la atribución de una escasa tendencia productiva—corresponde a la caracterización de sujetos perezosos contenida, junto a la de sujetos alcohólicos, en el estereotipo *indios flojos y borrachos* propuesto por Stuchlik (1974). Según este autor, esta caracterización habría surgido a partir de fines del siglo pasado con el asentamiento de colonos chilenos y europeos en el ya conquistado territorio mapuche. Dada su economía agraria de subsistencia y la baja tecnología de su producción, el rendimiento laboral de los mapuches comenzó a aparecer, desde una perspectiva etnocéntrica de la cultura dominante y en comparación con el rendimiento de los colonos, como marcadamente deficitario. Este hecho fué explicado atribuyéndoles la caracterización de flojos, haciéndolos así responsables de su propia pobreza relativa y justificando, además, la usurpación de sus tierras. La actual vigencia de esta caracterización podría obedecer a la mantención y agudización de las circunstancias iniciales que favorecieron su formación.

La verificación de la coexistencia de dos estereotipos de signo contrario y de intensidad similar apoya la proposición de Cantoni (1978) respecto a la presencia en la cultura dominante de dos conductas antagónicas en relación al mapuche. Este antagonismo conductual no generaría disonancia ya que cada conducta se dirige a un modelo histórico particular de mapuche. Por una parte, la cultura dominante enaltece y se identifica con el mapuche *históricamente muerto*, el mapuche colonial (en esta investigación, *valiente guerrero*) y por otra, rechaza al mapuche *históricamente vivo*, el mapuche postcolonial o actual (en esta investigación, *indio cerrado y flojo*).<sup>4</sup> Si esto fuese así, podría esperarse que sólo el estereotipo negativo tenga efectos conductuales en la interacción social con el mapuche contemporáneo. La existencia de estereotipos asociados a dos modelos históricos de indígena (indio pretérito, abstracto y mítico vs. indio actual y “decadente”) ha sido también encontrada en sujetos no indígenas en contacto con indios amazónicos (de Oliveira, 1971). Sería de gran interés investigar la validez de la relación estereotipos-modelos con respecto a los mapuches y a otras comunidades indígenas americanas.

<sup>4</sup>Quizás estos dos modelos históricos de indio expliquen la adscripción simultánea en las escalas 8 y 13 de ambas características polares. Es posible que las características *orgullosa* y *violenta* fueran adscritas al mapuche pretérito y sus respectivas polaridades (*humilde* y *calmada*) fueran atribuidas al mapuche contemporáneo.



## Determinantes de la Adscripción de Estereotipos

La distribución de la muestra total según su grado de contacto con mapuches fue la siguiente: alto = 34%, moderado = 43% y bajo = 23%. Dos análisis de varianza de una vía fueron calculados para probar la asociación entre el grado de contacto y la atribución de cada una de las dimensiones. Sólo la dimensión *sociabilidad/productividad* resultó significativamente asociada  $F(2, 141) = 5.20, p < .01$ . Tal como se esperaba, las medias (grado de contacto alto =  $-0.79$ , moderado =  $-0.68$  y bajo =  $-0.43$ ) revelaron una tendencia a atribuir una *sociabilidad/productividad* más negativa según aumenta el grado de contacto. La prueba de Tukey indicó que los sujetos con alto o moderado contacto difirieron significativamente,  $p < .05$ , de aquéllos con contacto bajo. Esta relación directa entre el grado de contacto y la intensidad del estereotipo negativo es consistente con hallazgos previos (Marín y Salazar, 1985) y apoya la noción de que, en un contexto de relaciones interétnicas conflictivas, un alto grado de contacto tiende a intensificar, más que a reducir, los estereotipos negativos.

El que únicamente la dimensión *sociabilidad/productividad* resultara asociada al grado de contacto respaldaría la idea enunciada anteriormente que, de los dos estereotipos, sólo el negativo afectaría las relaciones con el mapuche actual. Puesto que esta idea fue derivada de la proposición de Cantoni (1978) sobre la existencia de dos modelos históricos de indio, esta evidencia apoyaría también, aunque indirectamente, tal proposición.

La asociación de cada dimensión con variables demográficas del atribuyente fue probada por separado usando un análisis de varianza en un diseño factorial 2(Sexo)  $\times$  3(Edad)  $\times$  3(Educación).

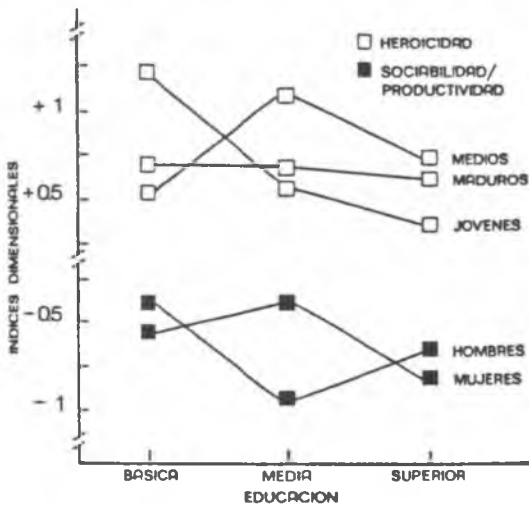


Figura 1. Interacciones significativas en las dimensiones *heroicidad* y *sociabilidad/productividad*.

El análisis de varianza para *heroicidad* señaló una interacción Edad  $\times$  Educación,  $F(4, 126) = 4.09, p < .01$  (ver Figura 1). Según la prueba de Tukey, los adultos jóvenes con educación superior atribuyeron una *heroicidad* ( $M = +0.36$ ) significativamente menos intensa,  $p < .05$ , que los adultos jóvenes con educación básica ( $M = +1.23$ ) y que los adultos medios con educación media ( $M = +1.08$ ). Así, entre los adultos jóvenes, aquéllos con educación superior y aquéllos con educación básica aparecieron respectivamente como los grupos menos y más contaminados por el estereotipo *valientes guerreros*.

Respecto a *sociabilidad/productividad*, apareció un efecto principal del nivel educacional,  $F(2, 126) = 3.76, p < .05$ . Las medias (educación superior =  $-0.77$ , media =  $-0.69$  y básica =  $-0.49$ ) indicaron una tendencia a aumentar la negatividad de esta dimensión según se incrementa el nivel educacional de los sujetos. En la prueba de Tukey sólo el grupo con educación superior difirió significativamente,  $p < .05$ , del grupo con educación básica. De este modo, los sujetos con educación superior constituyeron el grupo más contaminado por el estereotipo *indios cerrados y flojos*. Este hecho posee importantes efectos prácticos por cuanto este grupo tiene mayor impacto que los otros en la decisión y aplicación de políticas públicas que afectan directamente a los mapuches. Además, surgió una interacción Sexo  $\times$  Educación,  $F(2, 126) = 5.06, p < .01$  (ver Figura 1): Los hombres con educación media atribuyeron una *sociabilidad/productividad* ( $M = -0.94$ ) significativamente más intensa,  $p < .05$ , que las mujeres con educación media ( $M = -0.44$ ) y que los hombres con educación básica ( $M = -0.44$ ).

El nivel educacional apareció, entonces, determinando la adscripción tanto de *heroicidad* (en un efecto interactivo con edad) como de *sociabilidad/productividad* (en un efecto principal y otro interactivo con sexo). Estos resultados sugieren que la educación formal parece influir de algún modo en la adquisición de los estereotipos. Si ésto fuese así, la educación formal podría servir como estrategia para el desaprendizaje o no aprendizaje de estos estereotipos.

El presente trabajo, que constituye sólo el comienzo de la investigación de este tópico, plantea al menos cuatro sugerencias para futuros estudios. Una, someter a contrastación los estereotipos mapuches propuestos por Stuchlik (1974) usando, esta vez, instrumentos derivados directamente de tales proposiciones. Otra, indagar los estereotipos que los mapuches atribuyen a los miembros de la cultura dominante. Al respecto hay algunos antecedentes (Cantoni, 1978; Saavedra, 1971) de la presencia de un estereotipo negativo denominable *huinca* o *wingka* (extranjero, embustero, ladrón). Otra sugerencia, ya señalada, sería verificar en éste y otros contextos culturales de las Américas la relación entre los estereotipos atribuidos y los dos modelos históricos de indígena (indio pretérito vs. indio contemporáneo). Finalmente se sugiere investigar los efectos conductuales de los estereotipos.

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## EXTENDED SUMMARY

### Stereotypes of Mapuche Indians Held by Non-Mapuche Adults in Southern Chile

JOSÉ L. SAIZ V.

This study examined the stereotypes assigned to Mapuche Chilean Indians by non-Mapuche Chileans. The relations between the mainstream Chilean culture and the Mapuche subculture have been characterized by misunderstandings, disagreements, and conflicts with disadvantageous results for Mapuches. Although some authors (Cantoni, 1978; Saavedra, 1971; Stuchlik, 1974) have suggested the existence of positive and negative stereotypes of Mapuches in the mainstream culture, there was no empirical support to that effect. The present study was aimed, therefore, at verifying whether any such stereotypes existed and at establishing whether or not certain variables of the assigner (level of contact, sex, age, and education) played a role in stereotype ascription.

The subjects were 144 non-Mapuche adult residents of the Araucanía region (southern Chile). They were classified in a 2(Sex)  $\times$  3(Age)  $\times$  3(Education) matrix. By using emic, bipolar scales, the subjects rated the concept *individuo mapuche* and the degree of their personal contact with Mapuches.

A cluster analysis applied to a matrix of interscale distances (see Osgood et al., 1957) uncovered two underlying dimensions: *heroism* and *sociability/productivity*. There was a positive attribution for *heroism* and a negative one for *sociability/productivity* reflecting stereotypes labeled as *brave warrior* and *refractory and lazy Indian*, respectively. These data would point to the existence of two historical models of Mapuches: On the one hand, the mainstream culture exalts and identifies itself with an ancient, mythical Mapuche (*brave warrior*, in this study), while on the other hand, it demeans and segregates a current, "decadent" Mapuche (*refractory and lazy Indian*, in this study).

The level of contact with Mapuches affected only the ascription of *sociability/productivity*: There was a tendency to attribute a more negative stereotype as the degree of contact increased. The latter result is consistent with other findings (Marín & Salazar, 1985) and lends support to the notion that, in the context of conflictive inter-ethnic relations, a higher level of contact tends to intensify, rather than reduce, negative stereotypes. Within the positive stereotype, a significant Age  $\times$  Education interaction was found. Among young adults, those with high levels of education were the least contaminated by this stereotype; whereas those with only elementary levels of education appeared as the most contaminated ones. Within the negative stereotype, a significant main effect for education was observed: The higher the educational level of the assigner, the more

negative the stereotype. However, within the negative stereotype, a significant Sex  $\times$  Education interaction was also found: Men with intermediate levels of education attributed this stereotype more intensely than both women with the same levels of education and men with elementary levels of education. Thus, attribution of stereotypes in this study appeared to be related, in various ways, to the level of formal education of the assigners. Suggestions are given for future research on the topic.

## **The Relationship of Voluntary Turnover and Worker Personality in the *Maquiladora* Industry in Mexico**

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The literature on employee turnover has focused on work-environment variables to the virtual exclusion of worker personality. The present study explores the relationship of three personality variables—achievement motivation, sex role, and coping style—to worker turnover and longevity. Personality data were collected from 202 line workers (100% female workforce) at a component-assembly plant in Ciudad Juárez, Chihuahua, Mexico. A year later, turnover data were collected on this group. Discriminant analysis predicted turnover from demographic and personality data for one-half the sample, and discriminant coefficients were cross-validated on the remainder of the sample. A classification procedure based on discriminant scores correctly classified 64% of the “continuers” and 69% of the “quitters” in the developmental sample and 67% of the “continuers” and 68% of the “quitters” in the cross-validation sample. Personality data were demonstrated to significantly improve the prediction of turnover above and beyond that provided by simple employee demographics. Implications of these findings for selection procedures are discussed.

Since Mexico's implementation of the Border Industrialization Program in 1965, more than 600 factories have been built along Mexico's northern border with the United States as part of the *maquiladora* program (Moffett, 1984).

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*Maquiladoras*, or twin plants, are cooperative arrangements whereby Mexican labor, about 75% female (Holden, 1984), assembles components transported from the United States. The finished products are returned to the U.S. under special, favorable tax arrangements. By locating along the U.S. - Mexico border, U.S. firms can produce labor-intensive goods close to U.S. markets at reduced cost. Although the *maquiladoras* have cut production costs in half (Koepp, 1984), these operations have been plagued with intolerable turnover rates which sometimes reach as high as 15% to 20% per month (Moffett, 1984).

Most researchers have attempted to understand and explain the process of voluntary turnover by focusing on work-environment variables and worker responses to these variables (see reviews by Bluedorn, 1982; Mobley, 1982; Mobley, Griffeth, Hand, & Meglino, 1979; Porter & Steers, 1973; Price, 1977). Their assumption has been that "dissatisfiers" in the workplace can be identified and modified so that employees will continue working, thereby significantly reducing turnover.

Many of the "environmental" interventions suggested in the literature have been tried in the *maquiladoras*, but to no avail. For example, various companies have tried both nonpay incentives such as lunch and transportation subsidies and monetary bonuses for excellent attendance records or for accident-free weeks. Still others have tried paying above the Mexican minimum wage (Moffett, 1984). One plant even offered the opportunity to obtain a high school degree after working hours at a factory school (Templin, 1984). Unfortunately, turnover has continued unabated.

A minority view in the literature maintains that voluntary turnover results from the lack of fit between an individual's personality (needs and values) and the work environment (Dawis & Lofquist, 1984; Lofquist & Dawis, 1969; Wanous, 1980). The assumption here is that placing people in jobs appropriate to their individual personality structures will reduce voluntary turnover. The study of turnover from this perspective has been less influential (Butler, Lardent, & Miner, 1983; Mowday & Spencer, 1981; Mobley, Griffeth, Hand, & Meglino, 1979; Muchinsky & Tuttle, 1979; Parsuraman, 1982; Steers & Mowday, 1981). In fact, the recent review by Muchinsky and Tuttle concluded that "personality differences have a marginal impact on turnover" (p. 48), although all but two of the studies cited were conducted more than 20 years ago. A more recent study done with military cadets has shown relevant motivational variables to be related to turnover (Butler et al., 1983).

Although a vast literature on the causes, correlates, and consequences of turnover exists, nearly all of the research was conducted in the U.S. or other industrialized countries. Studies conducted in the developing world are virtually nonexistent. The present research grew from a practical need for a better answer to the turnover problem in the *maquiladora* industry. We were therefore left to our own devices in developing hypotheses. Like Butler and his associates, we believe that part of the key to understanding turnover can be found in the motivational and attitudinal propensities of the worker and the interaction of



these attributes with aspects of the job environment. The current research was done to study more closely the link between selected aspects of worker personality and turnover in this dynamic environment.

The study's working hypothesis was that workers who lack a specific set of achievement motives and work-related attitudes appropriate for a particular work environment are more likely to quit than are their co-workers who possess these attributes. The study was designed to be exploratory, and its objective was to identify a critical set of work-related attitudes and motives.

Because women constitute the vast majority of the *maquiladora* work force, it was decided to focus this research effort entirely on women. It was further decided to limit the investigation to three sets of personality variables: achievement motivation, sex role, and coping style.

Individual differences in work motivation have been the subject of extensive theoretical and empirical investigation. In summarizing this literature, Lawler (1973) argues that personal characteristics interact with job requirements to produce an individual's level of motivation. He argues that the key to understanding how individuals will react to jobs is in the strength of their higher-order needs. People who value such intrinsic outcomes as feelings of achievement, growth, and competence will be highly motivated by jobs that they experience as high on variety, autonomy, task identity, and feedback (Hackman & Lawler, 1971). On the other hand, people who do not value these outcomes will respond with frustration and irritation at having too demanding a job. To date, only one empirical study has explored the relationship between achievement motivation and worker longevity. Rhode, Sorenson, and Lawler (1976) found that for a group of public accountants, those who stayed in their current jobs were significantly higher in need for achievement than were those who quit.

On the basis of the literature, we expected that concordance between need for achievement and job requirements would contribute to increased worker longevity. On the other hand, we expected that mismatches between job requirements and achievement needs would lead to increased turnover. Since the current research site was an assembly-line operation which provided little in the way of variety, autonomy, task identity, or feedback, we anticipated that high need-achievers would be more prone to turnover than would those low in need-achievement.

Sex role was selected as a variable because the stereotypical sex role for a Mexican woman appears to be at variance with the idea of leaving the home in search of full-time employment. *Hembrismo*, the stereotypical Mexican female sex role, is characterized by extreme femininity, passivity, and self-abnegation (Butler, 1971; Díaz-Guerrero, 1955; Stevens, 1973). The duties of the Mexican woman are seen to be confined primarily to the home. Her first and foremost responsibility is to be a wife and mother whose self-sacrifice is essential to the role (Butler, 1971; McGinn, 1966; Peñalosa, 1968). Our expectation was, therefore, that women who were more stereotypically feminine would have more role conflict and be more likely to leave their jobs.

Individual differences in coping style were also expected to influence whether workers decide to continue in their work. Diaz-Guerrero (1955, 1965) has suggested that there are cultural differences in the way Mexicans and North Americans deal with problem situations. According to Diaz-Guerrero, traditional Mexican culture encourages problem-solving by passive accepting or enduring (self-modification) while traditional North American culture espouses problem-solving through active modification of the physical, interpersonal, or social environment. It was expected that individuals with more traditional Mexican coping styles would be more likely to stay on the job (passive, self-modification) while those using coping strategies that were less traditionally Mexican would be more likely to seek alternate employment opportunities (active, environmental modification).

## METHOD

### Subjects

Data for this study were collected in the fall of 1982. The sample consisted of all 202 line workers (100% female work force) at a wood components fabrication and assembly plant in Ciudad Juárez, Chihuahua, Mexico, which had an average monthly turnover rate of about 3%. The median age of the sample was 24.5 years and the median level of education was 6 years of primary schooling. Most of the sample was single (61%); 29% were married, and the remaining 10% were either widowed, divorced, separated, or living in a common-law marriage. The median amount of time that these women had been working at the plant was four years.

Workers were given time during their workshift to complete a job satisfaction survey. The entire testing procedure was conducted by fluent, Spanish-speaking university researchers; no company personnel, other than the workers, were present during any part of the survey process.

Workers were first informed about the purposes of the survey. Next, surveys were disseminated by about 15 research assistants who also circulated among the workers during the administration of the questionnaire to answer any questions that arose. To insure that responses would be as honest as possible, workers were assured that the only people to see their answers would be the researchers and therefore they were urged to be candid. Workers were also told that data would be presented to management only in aggregate form so that no worker could be individually identified.

### Variables

Helmreich & Spence's (1978) 32-item Work and Family Orientation Questionnaire (WOFO) was the achievement-motivation inventory selected for use in this

research. The authors report that the WOFO scales of intrinsic motivation are designed to measure general personality traits free of situational context. Scales derived from factor analyses of these items were designated work, mastery, competitiveness, and personal unconcern, by Spence and Helmreich. The first three scales deal respectively with the desire to work hard, the desire for intellectual challenge and the desire to succeed in competitive, interpersonal interactions. Personal unconcern measures attitudes about the possible negative interpersonal consequences of achievement related to the notion of *fear of success* (Horner, 1968).

The Extended Personal Attributes Questionnaire (EPAQ; Spence, Helmreich, & Stapp, 1974; Helmreich, Spence, & Holahan, 1979) was used to assess worker sex role. The EPAQ is a 40-item, semantic differential inventory which contains six subscales. The M+ scale contains a series of socially desirable, active or instrumental traits. The F+ scale contains a set of socially desirable, communal or expressive traits. The MF scale contains socially desirable items which stereotypically differentiate the sexes. The M- scale contains socially undesirable, active items. The FC- scale contains items that are socially undesirable and communal in nature. Finally the FVA- scale contains items of a neurotic, passive-aggressive nature.

Worker coping style was measured by use of a short-form (28 items) version of the Views of Life questionnaire (VOL; Díaz-Guerrero, 1973, 1976; Díaz-Guerrero & Lawrence, 1972). The VOL contains four factorially independent scales. They are active self-assertion, active internal control, passive cautiousness, and independence.

Since all subjects in the sample were monolingual Spanish speakers, all items in the survey were translated into Spanish and pretested. The process of translation and testing was done as follows. The items initially were translated into Spanish by the research team (all of whom are bilingual). This Spanish version was back-translated into English by a group of bilinguals unfamiliar with the original English version. Items that revealed discrepancies between the back-translated and original English versions were identified, and those items were reworded.

Turnover data were obtained one year after the date of testing. The report indicated that 54 out of the original sample of 202 had voluntarily terminated employment, and another seven workers had been terminated owing to inadequate performance. Only workers who had either voluntarily resigned or remained with the organization were included in subsequent analyses.

## RESULTS

The data were collected on a population that was both culturally and educationally distinct from that upon which the EPAQ and WOFO had been normed. Therefore, it was decided to use factor analysis to verify that the factor structure

of these scales was the same for the Mexican sample as for the normative U.S. sample. Although a principal-components analysis produced the same number of factors as were generated from the normative samples for the PAQ and WOFO, there were many differences in the loadings of individual variables. Variables from the VOL were also factor analyzed with similar results—the same number of factors emerged, but loadings were again different from those in the normative sample. Since the data could not be combined into valid preexisting scales, it was decided to use empirically derived factor scores in all subsequent analyses. Hence, principal-components analyses produced six sets of factor scores from the PAQ, four sets from the WOFO, and another four from the VOL.<sup>1</sup>

A hierarchical discriminant analysis was employed to determine whether the above-mentioned factor scores could be used to distinguish between workers who continued in their current employment and those who quit their jobs. Since the stability of classification results is critical in this type of study, a cross-validation procedure was used. The sample was divided in half, with the first half serving as the developmental sample. The remaining half was used to test the efficacy of the discriminant coefficients in terms of classification accuracy. Of the original 202 cases, 9 were dropped from analysis because of missing data. Missing data were scattered over cases with no pattern evident on the basis of grouping or demographic variables.

Since basic demographics are easily available to all employers, age, job tenure, and marital status were also included in the hierarchical discriminant analysis. At step one all demographic variables were entered (forced entry), and all personality factors were entered at step two.

Unstandardized coefficients from the discriminant function were used to calculate discriminant scores for each individual in the developmental sample. Using these discriminant scores, workers were predicted to be either “continuers” or “quitters.” Prior probabilities were based on the industry turnover rate for the year the data were collected (51.6% annual rate). The classification procedure correctly classified 65.3% of the developmental sample. “Quitters” were slightly more likely to be correctly classified than were “continuers” (69% and 64% correct, respectively).

The stability of the classification procedure was tested via cross-validation. Coefficients from the discriminant analysis of the developmental sample were applied to the validation sample to calculate discriminant scores. Based on these discriminant scores, workers in the validation sample were predicted to be either “continuers” or “quitters.” The classification procedure correctly classified 67% of the validation sample. “Quitters” were more likely to be correctly classified than were “continuers” (68% and 67% correct, respectively).

To test whether personality measures improved the prediction of turnover above and beyond that provided by simple employee demographics, we initially

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<sup>1</sup>Factor analyses of all three instruments, including variable loadings, are available from the first author. Discussion of the pattern of factor loadings is beyond the scope of the article.

classified cases only on the basis of age, job tenure, and marital status. On this basis, the classification procedure correctly classified 50% of all cases. Through our addition of the personality variables, the classification procedure correctly classified 66% of all cases, a significant improvement  $\chi^2(1) = 4.29, p < .05; d = .32$ .

## DISCUSSION

The results from this study are consistent with previous research, in that "most studies report some significant relationships between personality variables and turnover" (Muchinsky & Tuttle, 1979, p. 48). However, Muchinsky and Tuttle's conclusion that "personality differences have a very marginal impact on turnover" (p. 48) was not supported by the present research. Our study shows that workers' responses to paper-and-pencil personality inventories can be used to significantly improve predictions of worker longevity made solely on the basis of employee demographics.

While hypothesis testing was not possible, because the factor structure of the scales was different from the structure obtained during instrument development, the data do allow some comment about hypothesized relationships. It appears that the expected relationship between sex role and job turnover might have been too simplistic. For example, although "quitters" were more likely to label themselves using positive, traditional, stereotypically feminine attributes than were "stayers" (supporting the hypothesis), they were also more inclined to describe themselves using a number of negative, masculine characteristics. "Quitters" reported themselves to be more emotional, less self-confident, more likely to need good peer relations, more likely to ignore rather than confront problems, and more likely to simply tolerate adversity in life and work. Yet those same individuals reported themselves to be less likely to respect and obey authority, a characteristic at variance with the stereotype.

"Stayers" were more likely to describe themselves using positive, masculine characteristics in ways that would indicate higher self-esteem and better adjustment to the realities of their circumstances. They reported themselves to be more self-confident, less in need of peer approval, less emotional, more likely to obey and respect authority, more likely to confront rather than ignore problem situations, better able to make the most out of any situation. In sum, they appear to be more successfully coping with their work situations.

There was also some support found for the hypothesized relationship between turnover and achievement motives. Since the work provided very little in the way of variety, autonomy, task identity, or feedback, it was expected that higher need-achievers would be more prone to turnover than low need-achievers. "Quitters" did, in fact, appear to have more of the characteristics of high need-achievers than did "stayers." For example, "Quitters" tended to state a preference for more

complex work, reported that it was important to do one's work as well as possible, and needed to do better than others to be satisfied with their work. On the other hand, "stayers" reported a preference for simpler, less challenging work, reported not needing to do as well as possible at their work, and were more likely to use internal standards (versus how well others were doing) to gauge how well they were doing their work.

The use of standardized tests, especially personality inventories, in hiring decisions has always been a troublesome issue. In the most comprehensive review of the validity of personality testing in an industrial setting, Guion and Gottier (1965, p. 160) concluded as follows:

It is difficult . . . to advocate with a clear conscience the use of personality measures in most situations as the basis for making employment decisions about people. It seems clear that the only acceptable reason for using personality measures as instruments of decision is found only after doing considerable research with the measure in the specific situation and for the specific purposes for which it is to be used. Sometimes unvalidated personality measures are used as instruments of decision because of "clinical insight" or of the gullibility or superstition of evidence accumulated in some other setting. All of these may be equally condemned unless specific situational data can be gathered that the insight, superstition or borrowed validity is in fact predictive.

Another note of caution is also in order. Personality data were collected from individuals who were current company employees. If, instead of employees, these individuals had been soliciting work and thought that the information would be used for selection purposes, they might have answered differently, thereby reducing the predictive validity of the personality measures. A recent review of the relative merits of concurrent versus predictive studies, however, concluded that there are only minimal differences between the validities of the two methods (Barrett, Phillips, & Alexander, 1981).

The results of this study show that personality data might well provide an additional useful tool in the management of turnover in the *maquiladoras*. That workers in this sample constituted a socially, educationally, and culturally homogeneous group should be interpreted as a strength and not a limitation of the research. It is anticipated that a more heterogeneous sample should have better predictive success.

The data also emphasize the need to validate tests that are to be used in a cross-cultural context to insure that the intended construct is actually being measured.

The recent, rapid industrialization of the developing world has, in large measure, been based on the use of an indigenous labor force to cut labor costs. Each developing country has a unique set of social, political, historical, and economic variables that affect individual work behavior. Yet the literature on

organizational behavior is virtually nonexistent. Current knowledge must break out of its "scholarly provincialism" (Roberts, 1970) to test current notions in different cultural contexts. The current research is one small step toward that end.

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## RESUMEN EXTENSO

**Interrelaciones Entre la Rotación<sup>1</sup> Voluntaria  
y la Personalidad de las Operarias  
en la Industria Maquiladora de México**

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y

ADOLFO J. ÁLVAREZ

A raíz de la implementación del Programa de Industrialización Fronteriza en 1965, se han establecido más de 650 plantas en la frontera de México con los Estados Unidos como parte del programa de maquiladoras (Moffett, 1984). Aun cuando las maquiladoras han reducido los costos de producción en un 50% (Koepp, 1984), estas operaciones han sufrido una rotación intolerable de personal que ha llegado al 15% o 20% mensual (Moffett, 1984).

La mayoría de los investigadores han tratado de comprender y explicar el proceso de rotación voluntaria enfocando las variables de ambiente de trabajo. Un punto de vista minoritario en la literatura sostiene que la rotación voluntaria resulta de un desajuste entre la personalidad de un individuo (necesidades y valores) y el ambiente de trabajo. Aun cuando existe una vasta literatura sobre las causas de la rotación, los estudios realizados en las naciones en proceso de desarrollo son virtualmente inexistentes. La presente investigación surgió de la necesidad práctica de dar una mejor respuesta al problema de la rotación en la industria maquiladora.

El estudio exploró la relación entre las variables de la personalidad (motivación por el éxito, roles sexuales y estilos de confrontación personal) y la rotación y la longevidad laboral de las obreras. Se obtuvieron datos sobre la personalidad entre 202 operarias de línea (fuerza laboral 100% femenina) en una planta de componentes de madera en Ciudad Juárez, Chihuahua, México. Un año más tarde se recogieron datos referentes a rotación de personal relativos al mismo grupo de operarias. Los análisis discriminativos permitieron predecir la rotación en base a datos demográficos y de personalidad para la mitad de la muestra y los coeficientes de la discriminación se sometieron a una validación cruzada en el resto de la muestra. Se efectuó un procedimiento de clasificación basado en los datos de discriminación que permitió clasificar correctamente al 64% de las

<sup>1</sup>El término "rotación" se emplea en este estudio en vez del término "cambio voluntario de personal", ya que describe un proceso mediante el cual una trabajadora se traslada de un trabajo a otro dentro de la industria maquiladora. De hecho, el término es empleado ampliamente por los jefes de personal dentro de las plantas industriales para caracterizar al "cambio voluntario de personal".

operarias “estables” y al 69% de las “desertoras” en la muestra de desarrollo y al 67% de las “estables” y al 68% de las “desertoras” en la muestra de validación cruzada.

Con el fin de determinar si las mediciones de personalidad mejoraban las predicciones sobre rotación de personal efectuadas con una base puramente demográfica, se clasificaron los casos, inicialmente, en base a edad, duración del puesto y estado civil. La clasificación basada en estos datos logró predicciones correctas en el 50% de los casos. Al agregar las variables de personalidad, las predicciones fueron correctas en el 66% de los casos, lo cual fue un mejoramiento significativo  $\chi^2(1), p < .05$ .

Mientras no fue posible la prueba de una hipótesis debido a que la estructura de factores de las escalas era diferente a la obtenida durante la elaboración de la prueba, los datos nos permiten algunos comentarios sobre las relaciones hipotéticas. Las relaciones esperadas entre roles sexuales y rotación de puestos pueden haber sido muy elementales. Por ejemplo, aun cuando las “desertoras” se describían a sí mismas empleando más atributos femeninos positivos, tradicionales y estereotipados que las “permanentes” (en apoyo a la hipótesis); las “permanentes” mostraron una tendencia a describirse a sí mismas empleando características positivas y masculinas en forma que revelaba una mayor autoestima y una mejor adaptación a la realidad de sus circunstancias.

Los datos también apoyaron la relación hipotética entre la rotación y la motivación por el éxito. Las “desertoras” mostraron, en realidad, mayores características de alta necesidad de éxito que las permanentes.

Los resultados de este estudio demuestran que los datos de personalidad pueden proporcionarnos un instrumento útil en el manejo de la rotación en las maquiladoras.

## GROUP PERSONALITIES IN NATIONS?

*National Characteristics*, by Dean Peabody. Cambridge, England: Cambridge University Press, 1985. ix + 256 pp. US\$39.50.

The notion of group personality has been popular, at least since the time of the Greek historian Herodotus in the fifth Century B.C.; and the concept of national character—the relatively enduring personality characteristics that are modal among members of a particular culture—has been a fundamental assumption in psychological anthropology since the 1930s. Interest in national characteristics was also greatly stimulated by World War II when several behavioral scientists, influenced by psychoanalysis, wrote thought-provoking books on the personalities of primitive and civilized cultures. The net outcome of all this activity, however, was disappointing; thus the rigorous testing of the assumption of a modal group personality in nations did not begin until the 1950s, when psychological tests and scaling techniques came to be used routinely in studying possible national differences.

*National Characteristics*, a new title in the European Monographs in Social Psychology series, “considers the psychological characteristics of nationalities (‘national characteristics’) and judgments about them (‘group judgments’)” (p. 5). Dissatisfied with traditional psychological techniques for measuring stereotypes/characteristics, Peabody developed 14 pairs of scales based on 14 sets of contrasting trait-adjectives (that allow for the separation of descriptive and evaluative aspects of judgment) and studied six target groups: English, Germans, French, Italians, Russians, and U.S. North Americans. A great deal of care was taken in translating the scales into the several languages represented before each nationality was rated and, with the exception of the North Americans, rated themselves. In addition, other national groups participated either as judges (Austrians, Finns, Greeks, North Italians, South Italians, Chinese, Filipinos) or target groups (Dutch, Irish, Swiss, Spanish, Czechs, Hungarians, East Germans, Swedes, Turks, Northern Greeks, Southern Greeks, Japanese). The number of judges in the groups ranged from a low of 22 (Chinese) to a high of 66 (Filipinos). The target nationalities totaled 76 (range: 2 to 10). Individual chapters are devoted to each of the six main target groups, and to four regional substudies with more limited objectives: north and south Italians, northern Europeans, southern and eastern Europeans, and the Philippines (actually a pilot study, originally published in 1968, that served as a model for the larger European investigation).

The principal conclusions of Peabody's research are as follows: (a) Differences between nationalities are greater than between judges; (b) descriptive aspects of judgment are more important than evaluative aspects; and (c) there are three major dimensions that summarize much of the results: (a) "tight versus loose" control over impulse-expression, (b) a descriptive dimension named self-assertiveness, and (c) a general evaluative dimension. Almost all the nationalities have a clear direction on the tight-loose dimension and, in general, this direction is agreed upon by different groups of judges. While all nationalities except the English are clearly judged assertive, there are none clearly judged unassertive (i.e., the nationalities are judged assertive and non-assertive). The judgments obtained by Peabody generally do not correspond to the traditional group "stereotypes" found by others in the past. In fact, evidence resembling traditional stereotypes appears in only a few cases.

Dean Peabody (Ph.D., Harvard, 1960) is professor of psychology at Swarthmore College, where he has been since 1961. Prior to 1961 he taught at the University of Oregon and at Columbia University. During 1949-54 he lived in western Europe and worked with eastern European refugees.

The research reported in *National Characteristics* is a vast improvement over most of the previous work done in this area. Appropriately self-critical, Peabody has related careful empirical work to a cognitive psychological frame of reference that serves as a guide for evaluating the relevant literature about each nationality studied. This book can be recommended to those interested in culture and personality, ethnicity, or the comparative study of nations.

Jon D. Swartz

## BOOK REVIEWER

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## CRIMINAL JUSTICE AND MENTAL HEALTH DELIVERY SYSTEMS

*Law and Mental Health: International Perspectives*, Volume 2. David N. Weisstub, editor. New York: Pergamon Press, 1986. 286 pp. US\$55.00.

This second volume of a series follows the pattern established in Volume 1 of offering an appraisal of recent trends and conditions in areas where the criminal justice and mental health delivery systems conflict or overlap. Published under the sponsorship of the Institut Phillippe Pinel (Montreal), each of the five chapters is in English, with moderately extensive abstracts in French. Although an attempt is made to address international concerns, much of the emphasis is still on the United States: One chapter is devoted exclusively to malpractice in U.S. psychiatry and two others have been funded by U.S. institutions.

An exception to this tendency, Chapter 1 covers current legislative changes and court decisions throughout the British Commonwealth. Although qualitatively rather different from recent developments in the United States, the results of such changes have been rather similar to those seen in the United States: the reduction of access to public mental health services for many indigent individuals and an increased involvement of the private sector in the delivery of such services.

Chapter 2 addresses the issue of malpractice in U.S. psychiatry. Recent malpractice decisions have often involved the alleged negligence of psychiatrists in discharging patients who subsequently harm others or in failing to warn potential victims of a patient's dangerousness. The discussion centers on the nature of the patient-psychiatrist relationship and possible differences between this relationship and other patient-physician relations.

Chapter 3 is a selective review of the psychiatric, historical, and anthropological literature pertaining to pedophilia. The finding is that there is no theoretical explanation for the development of inappropriate sexual age preferences, although some general possibilities for future research are discussed.

Chapter 4 examines the literature related to the inheritance of biological characteristics that are predisposing to criminal behavior. The authors argue that the demonstration of biological as well as sociological determination of criminality might serve to create attitudes of greater understanding and tolerance of criminals.

Chapter 5 reviews the history of psychotherapist-patient privilege in the United States and summarizes the current situation in each state. There is a very brief summary of the status of such privilege in other nations.

There is no editorial attempt to tie the various contributions together; each is substantial (ranging from 33 to 83 pages) and stands on its own merit. The chapters are written by specialists for specialists and some sophistication in the reader is assumed. The authors represent a variety of professions, including criminology, law, psychiatry, and psychology. The book is thus a collection of more or less unrelated reviews, tied together only by their general relevance to the relationship between the criminal justice and mental health delivery systems. This

approach is certainly valuable and may in fact be the most practical at present. Both the importance of the topic and the rapidly expanding literature in the area suggest, however, that it soon will be time for the appearance of integrated texts that incorporate, interpret, and evaluate the data presented by subspecialists.

Robert C. Reinehr

## BOOK REVIEWER

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Por decisión de la Junta Directiva de la SIP/ISP, el Volumen 20 (1986) de esta *Revista* consiste exclusivamente de este número doble. El próximo número será el Número 1 del Volumen 21 (1987).

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By decision of the SIP/ISP Board of Governors, Volume 20 (1986) of this *Journal* is composed exclusively of this double issue. The next issue will be Number 1 of Volume 21 (1987).

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Por decisão da Diretoria da SIP/ISP, o Volume 20 (1986) da *Revista* constará apenas deste número duplo. O próximo número será o Número 1 do Volume 21 (1987).



